

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐  
(highlight changes)

<b>APPLICATION FOR PERMIT TO DRILL</b>				5. MINERAL LEASE NO: <b>ML-46110</b>		6. SURFACE: State	
1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>				7. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER _____ SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>				8. UNIT or CA AGREEMENT NAME: <b>Moon Canyon</b>			
2. NAME OF OPERATOR: <b>Royale Energy, INC</b>				9. WELL NAME and NUMBER: <b>Vernal Equinox 2-2</b>			
3. ADDRESS OF OPERATOR: <b>7676 Hazard Center Dr</b> CITY <b>San Diego</b> STATE <b>CA</b> ZIP <b>92108</b>				PHONE NUMBER: <b>(619) 881-2800</b>		10. FIELD AND POOL, OR WILDCAT: <del>Wildcat</del> <b>Undesignated</b>	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: <b>832' FSL &amp; 2025' FWL</b> AT PROPOSED PRODUCING ZONE: <b>Same</b>				11. QTR/QR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <b>SESW 2 16S 21E</b>			
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: <b>65 Northwest of Fruita, CO</b>				12. COUNTY: <b>Grand</b>		13. STATE: <b>UTAH</b>	
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) <b>832 ft</b>		16. NUMBER OF ACRES IN LEASE: <b>640.8</b>		17. NUMBER OF ACRES ASSIGNED TO THIS WELL: <b>40</b>			
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) <b>NA</b>		19. PROPOSED DEPTH: <b>10,700</b>		20. BOND DESCRIPTION: <b>Statewide Bond #291395</b>			
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): <b>7201 ft. GR</b>		22. APPROXIMATE DATE WORK WILL START: <b>9/1/2007</b>		23. ESTIMATED DURATION: <b>30 days</b>			

24. PROPOSED CASING AND CEMENTING PROGRAM							
SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT		
12-1/4"	9-5/8	K-55	36#	2,000	Class "G"	1200 sx	1.17 15.8 ppg
8-3/4"	7	N-80	23#	6,600	50/50 POZ	890 sx	1.26 14.2 ppg
6-1/4"	4-1/2	P-110	11.60#	10,700	50/50 POZ	533 sx	1.26 14.2 ppg

25. ATTACHMENTS	
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:	
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER <input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN <input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

**CONFIDENTIAL**

NAME (PLEASE PRINT) Eric Noblitt TITLE Agent

SIGNATURE *Eric Noblitt* DATE 7/20/2007

(This space for State use only)

API NUMBER ASSIGNED: 43019-31552

**Approved by the  
Utah Division of  
Oil, Gas and Mining**

Date: 7/20/07  
By: *[Signature]*

**RECEIVED**  
**JUL 27 2007**  
DIV. OF OIL, GAS & MINING

**T16S, R21E, S.L.B.&M.**

**ROYALE ENERGY, INC.**

W.C.  
1920 Brass Cap,  
0.9' High, Pile of  
Stones

13.20'  
(G.L.O.)

N89°58'45"W - 2650.04' (Meas.)

N89°58'34"W  
2640.41' (Meas.)

T15 1/2S

1920 Brass Cap,  
1.5' High, Pile of  
Stones

Well Location, VERNAL EQUINOX #2-2, located  
as shown in the SE 1/4 SW 1/4 of Section 2,  
T16S, R21E, S.L.B.&M., Grand County, Utah.

**BASIS OF ELEVATION**

SPOT ELEVATION AT AN OIL WELL LOCATED IN THE NE 1/4  
OF SECTION 15, T16S, R21E, S.L.B.&M. TAKEN FROM THE  
TENMILE CANYON NORTH QUADRANGLE, UTAH, 7.5 MINUTE  
SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED  
STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL  
SURVEY. SAID ELEVATION IS MARKED AS BEING 7620 FEET.

**BASIS OF BEARINGS**  
BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

S00°15'29"E - 2648.13' (Meas.)

Lot 4

Lot 3

Lot 2

Lot 1

1920 Brass Cap,  
1.4' High, Pile of  
Stones

2

1920 Brass Cap,  
1.5' High, Pile of  
Stones

S00°02'13"W - 2640.00' (Meas.)

S00°03'26"E - 2640.11' (Meas.)

1920 Brass Cap,  
1.3' High, Pile of  
Stones

2025'

**VERNAL EQUINOX #2-2**  
Elev. Ungraded Ground = 7201'

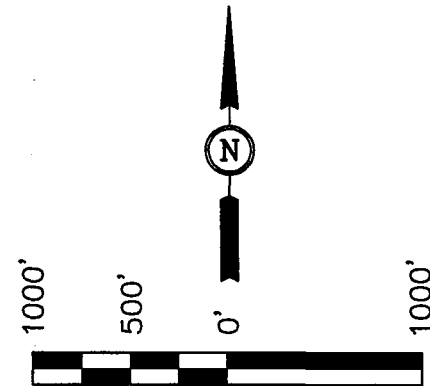
832'

1920 Brass Cap,  
1.9' High, Pile of  
Stones

S00°06'W - 2642.64' (G.L.O.)

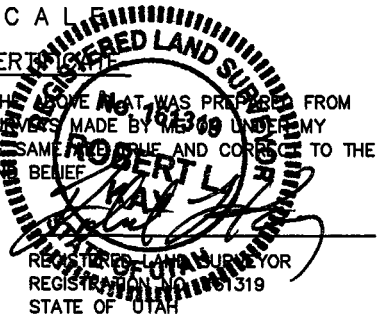
S89°58'48"W - 2641.48' (Meas.)

N89°58'E - 2641.98' (G.L.O.)



SCALE  
CERTIFIED

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM  
FIELD NOTES OF ACTUAL SURVEY MADE BY ME UNDER MY  
SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE  
BEST OF MY KNOWLEDGE AND BELIEF



**LEGEND:**

└─┘ = 90° SYMBOL

● = PROPOSED WELL HEAD.

▲ = SECTION CORNERS LOCATED.

(AUTONOMOUS NAD 83)  
LATITUDE = 39°26'23.38" (39.439828)  
LONGITUDE = 109°34'21.90" (110.572750)  
(AUTONOMOUS NAD 27)  
LATITUDE = 39°26'23.50" (39.439861)  
LONGITUDE = 109°34'19.43" (110.572064)

**UINTAH ENGINEERING & LAND SURVEYING**  
85 SOUTH 200 EAST - VERNAL, UTAH 84078  
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 06-28-07	DATE DRAWN: 07-10-07
PARTY J.R. Z.G. C.H.	REFERENCES G.L.O. PLAT	
WEATHER HOT	FILE ROYAL ENERGY, INC.	

# ROYALE ENERGY, INC.

Lease # ML-46110

Moon Canyon Unit

Vernal Equinox 2-2

SE/4SW/4; Section 2, Township 16 South, Range 21 East, SLM  
Grand County, Utah

## *Surface Use & Operations Plan*

### Ownership

#### *Surface & Minerals:*

State of Utah  
School Trust Lands  
675 E. 500 S.  
Salt Lake City, UT 84102  
(801) 538-5100

1. EXISTING ROADS – Refer to Exhibit Topo Maps “A” and “B”.
  - A. The wellsite has been surveyed to memorialize the proposed well pad (see Location Layout Plat)
  - B. To reach the proposed location from the UT/CO state line proceed East on Interstate 70 approximately 4.6 miles to the Westwater exit; proceed north .3 mile, turn right and go East 2.2 miles to Hay Canyon & East Canyon road (At National Fuel sign) turn left, proceed Northwest 12.6 miles to Hay Canyon road, turn left and travel up Hay Canyon 13.8 miles to Divide road. Turn left. Heading west, travel 9.3 miles to Moon Ridge sign. Turn right. Proceed 9.9 miles to proposed new access road. Travel Northeasterly 1.2 miles on proposed access road. Turn Right. Travel .5 miles to Vernal Equinox 2-2 location.
  - C. Access roads refer to Exhibit Topo Maps “A” and “B”.
  - D. Access roads within a one (1) mile radius, none – refer to Exhibit Topo Maps “A” and “B”.
  - E. The existing roads will be maintained in the same or better condition as existed prior to the commencement of operation and said maintenance will continue until final abandonment and reclamation of said well location.

### 2. PROPOSED ACCESS ROAD – Refer to Map Exhibits “A” & “B”

Access to the location will be on Grand County maintained roads until you turn Northeast (right) off the County road in the SE ¼, Section 10, T 16S-21E. The proposed new access road will be 1.7 mile in length crossing BLM and State lands to Vernal Equinox 2-2 location.

- A. Width – This new access road will be built with a twenty (20) foot running surface on a thirty (30) foot right-of-way.
- B. Construction Standard – Any road improvements will be conducted in accordance and with consultation with the appropriate governing authority.
- C. Maximum grade – The maximum grade is under 8%.
- D. Turnouts – Several turnouts exist on the existing road any new turnouts will be consultation of the appropriate governing authority.
- E. Drainage design – The existing road shall be maintained to provide proper drainage along the road.
- F. Culverts and low water crossings – Culverts (if needed) sizes will be determined by anticipated runoff.
- G. Surface material – It is anticipated that no additional surface material will be required for drilling and production operations. Should spot graveling be required during drilling operations, gravel would be obtained from the nearest commercial site.
- H. Gates, cattleguards or fence cuts: No Fence cuts or cattleguards will be required along the proposed existing/new route. All gates will be maintained during operations.
- I. Road maintenance – During both the drilling and production phase of operations, the road surface will be kept in a safe and useable condition and will be maintained in accordance with the original construction standards. All drainage ditches and culverts will be kept clear and free-flowing, and will also be maintained in accordance with the original construction standards. The access road will be kept free and clear of trash during all operations.

### 3. LOCATION OF EXISTING WELL WITHIN A ONE-MILE RADIUS

- |    |                             |      |
|----|-----------------------------|------|
| A. | Water wells                 | none |
| B. | Abandoned wells             | none |
| C. | Temporarily abandoned wells | none |
| D. | Disposal wells              | none |
| E. | Proposed wells              | none |
| F. | Shut-in wells               | none |
| G. | Producing                   | none |

#### 4. LOCATION OF PROPOSED FACILITIES

- A. All production facilities will be located on the disturbed portion of the well pad and at a minimum from of twenty-five (25) feet from the toe of the back slope or top of the fill slope.
- B. Production facilities will be located on the drillsite location. A diagram showing the proposed production facility layout will be submitted to the Division via Sundry Notice (Form # 9) will be submitted upon completion and installation of facilities.
- C. An existing pipeline for gas gathering is in place in Sec. 10-T16S-R21E. If the subject well is commercial a 3" welded surface line will be laid adjacent to the new access road from the Drillsite to SE ¼ of section 10.
- D. All permanent (in place for six months or longer) structures constructed or installed (including oil well pump jacks) will be painted a flat, non-reflective color to match the standard environmental colors. All facilities will be painted within six months of installation. Facilities required by OSHA may be excluded. Colors will be Juniper Black, unless otherwise advised by the governing authority.
- E. If a gas meter run is constructed, it will be located within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and will be buried downstream until it leaves the pad. The meter run will be housed. The gas meter shall be calibrated prior to first sales and shall be calibrated quarterly thereafter. All gas production and measurement shall comply with the provisions of the Division and the American Gas Association (AGA) Report No. 3.
- F. If a tank battery is constructed on the lease, it will be surrounded by a berm of sufficient capacity to contain 1-1/2 times the storage capacity of the largest tank. All loading lines and valves will be placed inside the berm surrounding the tank battery. All oil production and measurements shall conform to provisions of the Division.
- G. Production facilities on location may include a lined or unlined water pit as specified in Division rule R649-3-16. Any pit will be fenced with barbwire held in place by metal side post and wooden corner "H" braces in order to protect livestock and wildlife.
- H. During drilling and subsequent operations, all equipment and vehicles will be confined to the access road, drill pad and any additional area specified in the approved Application for Permit to Drill (APD).
- I. Reclamation of disturbed areas no longer needed for operations will be accomplished by grading, leveling and seeding as provided for in Division rule R649-3-34.

## 5. LOCATION AND TYPE OF WATER SUPPLY

- A. Water supply for the subject well shall come from a private source in Sec. 6, T16S-R23, owned by Bert Delambert. Water Change Application #t30440 authorizes such use.
- B. No water well will be drilled.

## 6. SOURCE OF CONSTRUCTION MATERIALS

- A. It is not anticipated that any construction materials (gravel) will be required during construction or operations. If required, a private contractor (or surface owner) having a previously approved source within the general area will be used.
- B. No construction material will be taken from State lands.

## 7. METHODS OF HANDLING WASTE MATERIALS

- A. Cuttings - The drill cuttings will be deposited in the reserve pit.
- B. Drilling fluids – All fluids including chemicals will be contained in the reserve pit. The reserve pit will be designed to prevent the collection of surface runoff and will be constructed with a minimum of one-half (1/2) total depth below the original ground level and at the lowest point within the pit. Pursuant to Division rule R649-3-16 & 34, prior to back-filling the reserve pit liquids will be disposed in an approved facility and the contents will be allowed to dry. The disturbed portion of the pad will be reclaimed. A 12-mil synthetic pit liner is proposed.
- C. Produced fluids – Liquid hydrocarbons that may be produced during completion operations will be placed in test tanks on the location. Produced water will be placed in the reserve pit for a period not to exceed ninety days after initial production.

Any spills of oil, gas, salt water or any other potentially hazardous substances will be cleaned up and immediately removed to an approved disposal site in accordance with Division rule R649-3-32.

- D. Sewage – Portable, self-contained chemical toilets will be provided for human waste disposal. Upon completion of operations, or as required, these toilets will be removed and the contents thereof disposed of in an approved sewage disposal facility.
- E. Garbage and other waste material – All garbage and non-flammable waste materials will be contained in a dumpster or trash cage. Upon completion of operations, or as needed, the accumulated trash will be hauled off-site to an approved sanitary landfill. No trash will be placed in the reserve pit during any operations pertaining to this well.

- F. Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned up and removed from the well location. No potentially adverse materials or substances will be left on location.
- G. Any open pits will be fenced during the drilling operation and said fencing will be maintained until such time as the pits have been back-filled.

## 8. ANCILLARY FACILITIES

None anticipated.

## 9. WELLSITE LAYOUT

- A. Attached hereto is a diagram showing the proposed location layout. No permanent living facilities are planned. There will be approximately four (4) trailers on location during drilling operations: one each for the wellsite supervisor, geologist/mudloggers, drilling fluids engineer and toolpusher.
- B. Topsoil will be stock piled on the West and North of the drillpad. Brush and trees will also be stock piled on the East side and Northeast corner of pad and will be used in the site reclamation process. Erosion ditches will be created along the side of the drill pad to control runoff from the drill pad. (see location layout plat)
- C. A diagram showing the proposed production facility layout will be submitted to the Division via *Sundry Notice* (form # 9) for approval (see # 4B).
- D. Prior to commencement of drilling operations, the reserve pit will be fenced on three (3) sides with four strand barbed wire held in place by metal side post and wooden corner "H" braces in order to protect livestock and wildlife.
  - 1. Corner post shall be braced in such a manner to keep the fence tight at all times.
  - 2. Standard steel, wood or pipe post shall be used between the corner braces. The maximum distance between any two (2) posts shall be no greater than sixteen (16) feet.
  - 3. All wire shall be stretched, by using a stretching devise, before it is attached to the corner posts.
  - 4. The fourth (4<sup>th</sup>) side of the reserve pit will be fenced immediately upon removal of the drilling rig and the fencing will be maintained until the pit is back-filled.
- E. Any Hydrocarbons on the pit will be removed immediately.
- F. Flare pit will be a minimum of 100 feet from the wellhead and 30 feet from the reserve pit when applicable. The flare pit will be on laydown side of pad.

## 10. PLANS FOR RECLAMATION OF THE SURFACE

### Producing

- A. Any rat and mouse holes will be back-filled and compacted from top immediately upon release of the completion rig from the location. The location and surrounding area will be cleared of all unused tubing, equipment, debris, materials, trash, and junk not required for production.
- B. Any oil located on the pits will be removed immediately in accordance with Division rule R649-3-16 & 34.
- C. Back-filling, leveling and re-contouring are planned as soon as possible after cessation of drilling and completion operations. Waste and spoil materials will be disposed of immediately upon cessation of drilling and completion activities.

Fluids from the reserve pit shall be removed. The liner shall be torn and perforated before back-filling of the reserve pit.

The reserve pit and that portion of the location not needed for production facilities/operations will be re-contoured to the approximate natural contours. The reserve pit will be reclaimed within six (6) months from the date of well completion. Before any dirt work takes place, the reserve pit will be completely dry and all cans, barrels, pipe, etc., shall be removed.

Surface owner will be contacted for required seed mixture pursuant to Division rule R649-3-34.

### Dry Hole/Abandoned Location

- 1. At such time as the well is plugged and abandoned, the operator shall submit a subsequent report of abandonment and the DOGM/SITLA will attach the appropriate surface rehabilitation conditions of approval.

## 11. OTHER INFORMATION

- A. Proximity of Water, Occupied Dwellings, Archaeologist, Historical or Cultural Sites:
  - 1. There are no known, occupied dwellings within one (1) mile of the location.
  - 2. There are no known water wells within one (1) mile of location.
  - 3. Royale Energy, Inc. will be responsible for informing all persons in the area who are associated with the project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites or for



collecting artifacts. If historic or archaeological materials are uncovered, Royale will suspend all operations that might further disturb such materials and immediately contact the State Historical Preservation Office"SHIPO".

4. A Class III cultural resource inventory of the proposed Vernal Equinox 2-2 location and its related 1.7 mile-long access road has been completed. The report will be filed with SHIPO and SITLA-State Office.

- B. The operator will, control noxious weeds along right-of-way for roads, pipelines, wellsites or other applicable facilities.

## 12. LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION

Royale Energy, Inc.  
7676 Hazard Center Drive, Suite 1500  
San Diego CA 92108  
Phone: (619) 881-2870  
Fax (619) 881-2876  
Drilling@royl.com  
Attention: Glenn Donaldson

Prepared by:

Date: July 20, 2007



Eric Noblitt, Agent  
2275 Logos CT. #B-1  
Grand Junction, CO. 81505  
Phone: (970) 245-3951  
Fax: (970)245-3951  
enoblitt@bresnan.net

# **ROYALE ENERGY, INC.**

**Lease # ML-46110**

**Moon Canyon Unit**

**Vernal Equinox 2-2**

**SE/4SW/4; Section 2, Township 16 South, Range 21 East, SLM  
Grand County, Utah**

July 20, 2007

## ***DRILLING PLAN***

### ***General***

NOTE: This well is to be drilled as a tight hole. Unauthorized personnel are not to be allowed on rig floor. All information is to be kept confidential.

Surface Location: 832' FSL and 2025' FWL  
SESW; Sec.2-T16S-R21E, SLM  
Grand County, Utah

Bottomhole Location: Same

Proposed Total Depth: 10,700'

Elevation: 7201' Ground Level (Ungraded)

Drilling Contractor: Yet to be determined

### ***Drilling Procedure***

#### **Location**

- 1) Build location, dig and line reserve pit as per pad layout specifications. Pit will be lined with a 12mil liner.

#### **Surface Hole**

- 1) Move in and rig up air drilling rig.
- 2) Drill a 12-2/4" surface hole to 2000' with air. Notify State of Utah DOGM as to cementing of surface casing.
- 3) Circulate and condition as required. Trip out of hole.
- 4) Run and cement 2000' of 9-5/8", 36#, K-55, ST&C, 8rd casing and as per cement recommendation. If cement returns to surface are not obtained, run 1" pipe in casing/hole annulus and top out w/ neat cement. Wait 8 hrs on cement.
- 5) Weld on 11" X 5,000 PSI flanged casing head.
- 6) Rig down and move off surface hole drilling rig.

### Intermediate Hole

- 1) MIRU rotary rig. Notify State of Utah DOGM as to BOP/CSG pressure test. Nipple up and pressure test BOPE and 9-5/8" casing to 70% internal yield of 9-5/8" csg.
- 2) Mud up. Trip in hole w/ 8-3/4" bit. Drill out float collar and guide shoe
- 3) Drill 8-3/4" intermediate hole from base of surface casing to 6,600' (or 200' +/- into Mancos)
- 4) Condition hole as per mud program. Run openhole logs as per logging program.
- 5) Trip in hole w/ bit and drill string. Condition hole for running pipe.
- 6) Run and cement 7" 23# N-80 production casing according to cement recommendation.
- 7) Pressure test 7" casing string to 1,500 psi for thirty (30) minutes.
- 8) Drill out 7" intermediate casing with 6-1/4" bit.
- 9) Well will be drilled to a depth of 10,700'
- 10) At T.D., condition hole for running openhole logs as per mud program.
- 11) Run openhole logs as per logging program.

### ***Decision Point: Producidle/Dryhole***

#### **Producible**

- 1) Trip in hole w/ bit and drill string. Condition hole for running pipe. Trip out of hole laying down drill- pipe and collars. Notify DOGM as to running and cementing of longstring.
- 2) Run and cement 4-1/2" production casing according to cement recommendation.

#### **Dryhole**

- 1) Notify State of Utah DOGM and receive plugging orders. Trip in hole open ended and plug well as per DOGM orders.
- 2) Release drilling rig. Reclaim location.

### **Estimated Tops of Geological Markers**

(From Ungraded GL)

<b><i>Formation</i></b>	<b><i>Top</i></b>
Green River	Surface
Main Mancos	6,400
Dakota Silt	10,000
Dakota Sandstone	10,200
Cedar Mountain	10,300
Morrison	10,400
<b><u>TD</u></b>	<b><u>10,700</u></b>

**Estimated Depths of Anticipated Water, Oil , Gas or Mineral Formations**  
(From Ungraded GL)

<b><i>Formation</i></b>	<b><i>Top</i></b>	<b><i>Possible Formation Content</i></b>
Dakota Sandstone	10,200'	gas
Cedar Mountain	10,300'	gas
Morrison	10,400'	gas

**Pressure Control Equipment**

- 1) Type: 11" X 5,000 psi WP, double-gate BOP and 11" X 5,000 psi WP annular BOP with hydraulic closing unit.

The blowout preventer will be equipped as follows:

- 1) One set of blind rams
- 2) One set of pipe rams
- 3) Drilling spool with two side outlet ( choke side: 3" minimum and kill side 2" minimum )
- 4) Kill line: Two-inch minimum
- 5) Two kill line valves, one of which will be a check valve ( 2" minimum )
- 6) Choke line: Three-inch minimum.
- 7) Two choke line valves: Three-inch minimum.
- 8) One manually operated choke: Three-inch minimum.
- 9) Pressure gauge on choke manifold.
- 10) Upper kelly cock with handle readily available.
- 11) Full opening internal blowout preventer or drill pipe safety valve able to fit all connections.
- 12) Fill-up line to be located above uppermost preventer.

- 2) PRESSURE RATING: 5,000 PSI

- 3) TESTING PROCEDURE

At a minimum, the BOP, choke manifold, and related equipment will be pressure tested to the approved working pressure of the approved BOP stack. (if isolated from the surface casing by means of a test plug) or 70% of the internal yield strength of the surface casing (if not isolated from the surface casing by means of a test plug). Pressure will be maintained for a period of at least ten minutes or until requirements of the test are met, whichever is longer.

At a minimum, this pressure test will be performed:

- 1) When the BOP is initially installed
- 2) Whenever any seal subject to test is broken.
- 3) Following related repairs.
- 4) At thirty day intervals.

In addition to the above, the pipe rams will be activated daily, and the blind rams will be activated on each trip (but not more frequently than once each day). All BOP tests and drills will be recorded in the IADC Driller's Log (tour sheet)

5) CHOKE MANIFOLD EQUIPMENT:

All choke lines will be straight lines, unless turns use tee-blocks, or are targeted with running tees.

These lines will be anchored to prevent whip and vibration.

6) ACCUMULATOR:

The accumulator will have sufficient capacity to close all rams (plus the annular preventer, if applicable) and maintain a minimum of 200 psi above the precharge pressure without the use of the closing-unit pumps. The fluid reservoir capacity will be double the accumulator capacity and the fluid level will be maintain at the manufacturer's recommendation. The BOP system will have two independent power sources to close preventers. Nitrogen bottles (three minimum) will be considered one of these sources and will maintain a charge equal to the manufacturer's specifications.

The accumulator precharge pressure test will be conducted prior to connecting the closing unit to the BOP stack and at least once every six months thereafter. The accumulator pressure will be corrected if the measured precharge pressure is found to be above or below the maximum or minimum limits of manufacturer's specifications.

7) MISCELLANEAUS INFORMATION:

The blowout preventer and related pressure-control equipment will be installed, tested, and maintained in compliance with the specifications in and requirements of DOGM's Drilling and Operating Practices #R649-3-7. The choke manifold and BOP extension rods will be located outside the rig sub-structure.

The hydraulic BOP closing unit will be located at least twenty-five feet from the wellhead, but will be readily accessible to the driller. Exact location and configuration of the hydraulic BOP closing unit will depend upon the particular drilling rig contracted to drill this hole.

## Casing and Cementing Programs

### PROPOSED CASING DESIGN

<i>Size</i>	<i>Interval</i>	<i>Length</i>	<i>Description</i>
9-5/8"	0' – 2,000'	2,000'	36#, K-55, STC
7"	0' – 6,600'	6,600'	23#, N-80, LTC
4-1/2"	0' - 10,700'	10,700'	11.60# P-110, LTC

A regular guide shoe and insert float will be run on the bottom and top of the first joint on casing. The guide shoe and float collar will be made up with A.P.I. thread locking compound. On 4-1/2" casing, a stop ring and centralizer will be run in the middle of the shoe joint. Centralizers will be ran 1 joint above float and across all potential pay zones.

NOTE: Casing strings will be pressure tested to 0.22 psi/ft of casing string depth, or 1,500 psi, whichever is greater ( not to exceed 70 % of the internal yield strength of the casing ) after cementing and prior to drilling out from under the casing shoe.

### PROPOSED CEMENTING PROGRAM

<u>Casing / Hole Size</u>	<u>Cement Slurry</u>	<u>SX</u>	<u>PPG</u>	<u>Yield</u>
9-5/8" / 12-1/4"	Tail: Class "G" w/ 2% CaCl <sub>2</sub> & 0.25 PPS Flocele ( 100% excess )	1200	15.8	1.17

Casing Equipment: 1 – Regular Guide Shoe  
1 – Insert float collar

NOTE: Precede cement w/ 50 bbls of fresh water. Have 100 sx "neat" cement on location and 1" line pipe to pump a cement top job if cement is not circulated to surface and/or cement falls back. All waiting-on –cement times will be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

<u>Casing / Hole Size</u>	<u>Cement Slurry</u>	<u>SX</u>	<u>PPG</u>	<u>Yield</u>
7" / 8-3/4"	50/50 Pozmix w/.25 PPS Flocele (30% excess)	890	14.2	1.26

This section of hole may be two staged cemented if loss circulation is encountered.

Casing / Hole Size	Cement Slurry	SX	PPG	Yield
4-1/2" / 6-1/4"	50/50 poz cement w/ 0.25 PPS Flocele ( 30% excess )	534	14.2	1.26
		TOC @ 6,500'		

NOTE: Actual cement volumes will be calculated from caliper log.

Casing Equipment: 1 – Regular guide shoe  
1 – Differential-fill float collar  
10 – Centralizers (Casing will be centralized on shoe jt and across all potential pay zones )

NOTE: Precede cement with 50 bbls of fresh water. Run compatibility test on proposed cement with actual make-up water. Cement design and volumes may be altered depending on results of caliper log and presence of lost circulation zones.

### Drilling Fluids Program

SURFACE HOLE: 0' – 2000'                      HOLE SIZE: 12-1/4"                      9/5/8" CASING

Surface pipe will be pre-set with air rig.

INTERMEDIATE HOLE: 2000' – 6,600'                      HOLE SIZE: 8-3/4"                      7" CASING

Drill out surface casing cement with water discarding contaminated fluid into reserve pit. Mud up with low-solids, 6 PPB DAPP mud system. Keep trip speeds down to reduce surge/swab pressure. Keep hole full at all times. Monitor pit levels to detect loss circulation and gas kicks. Sweep hole as dictated by hole conditions and prior to running production casing. Keep drill string moving at all times.

Recommend Fluid Properties: Weight                      8.8 – 9.2PPG  
Viscosity                      36-40 SEC / QT  
Water Loss                      6-8 CCS

PRODUCTION HOLE: 6,600' – 10,700'                      HOLE SIZE: 6-1/4"                      4-1/2" CASING

Drill out intermediate casing cement with water discarding contaminated fluid into reserve pit. Mud up with low-solids, non-dispersed 6 PPB DAPP mud system. Keep trip speeds down to reduce surge/swab pressure. Keep hole full at all times. Monitor pit levels to detect loss circulation and gas kicks. Sweep hole as dictated by hole conditions and prior to running production casing. Keep drill string moving at all times. Have 100-200 PPM nitrates in mud system prior to drilling any potential pay zones that may be DST'd.

Recommended Fluid Properties: Weight                      8.8 – 9.2 PPG  
Viscosity                      32-36 SEC / QT  
Water Loss                      6 – 8 CCS

### **Evaluation Program**

MUDLOGGING: Drilling samples will be caught every 20' from 2000' to 10,000'. Mudloggers will be on location and rigged up before drilling out surface casing. 10' samples will be caught from 10,000' to T.D. or as directed by wellsite geologist.

OPENHOLE LOGGING: 6600 –2000' – CNL/FDC w/ XY caliper and DLL  
10,700 –6600' – CNL/LDT w/ XY caliper and DLL

DRILLSTEM TESTING: None anticipated.

CORING: None anticipated.

STIMULATION: All prospective zones will be perforated, flow tested and evaluated to determine if acidizing and/or fracturing is required. The drill site will be of sufficient size to accommodate all completion operations.

The proposed Evaluation Program may change at the discretion of the well site drilling supervisor and geologist with the approval of the DOGM.

One copy of all logs, core descriptions, core analyses, DST test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during drilling, workover, and/or completion operations will be filed on form #8. Samples (cuttings, fluids, and/or gases) will be submitted when requested by DOGM.

### **Anticipated Bottomhole Pressure**

A bottomhole pressure of 3745 psi (.35 gradient) is anticipated at total depth (10,700')

#### **ABNOMAL CONDITIONS:**

No abnormal temperature or pressures are anticipated in the drilling of the Vernal Equinox 2-2.

### **Anticipated Starting Date and Miscellaneous**

1) ANTICIPATED STARTING DATE:	Location Construction	August 15, 2007
	Spud Date	September 1, 2007
	Drilling Days	30 days
	Completion Days	14 days



## 2) MISCELLANEOUS

There will be no deviation from the proposed drilling and/or workover program as approved. Safe drilling and operating practices will be observed.

All wells, whether drilling, producing, suspended or abandoned will be identified in accordance with *R649-3-5*. There will be a sign or marker with the name of the operator, lease serial number, well name and number and survey description of the well.

Any changes in operation must have prior approval from the DOGM. Pressure test will be performed before drilling out from under of all casing strings set and cemented in place. Blowout preventers controls will remain in use until the well is either completed or abandoned. Preventers will be inspected and operated at least daily to insure good mechanical working order, and inspection will be recorded on the daily drilling report. All BOP test will be recorded on the daily drilling report.

The spud date will be orally reported to the DOGM twenty-four (24) hours after spudding. If spudding occurs on a weekend or holiday, this report will be called in on the next regular work day following spudding of the well.

In accordance with *R649-3-6*, this well will be reported on form #6, *Entity Action Form*, starting within five working days of spudding the well.

All undesirable events ( fires, accidents, blowouts, spills, discharges ) as specified in *R649-3-32* will be reported to the DOGM Office. Major events will be reported verbally within twenty-four (24) hours and will be followed with a written report within five (5) days.

No well abandonment operations will be commenced without the prior approval of the DOGM. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the Division. A *Notice of Intention to Abandon* (Form #9) will be filed with the Division within five (5) days following the granting of oral approval to plug and abandon.

Upon completion of approved plugging, a regulation marker will be erected in accordance with *R649-3-25(7)*. The following information will be permanently placed on the marker with a plate, cap, or beaded-on with a welder: Company Name and Number, Location by Quarter/Quarter, Section, Township, Range and State Lease Number.

A *Subsequent Report of Abandonment* (Form #9) will be submitted within thirty (30) days following the actual plugging of the well bore. This report will indicate cement type and volumes, where plugs were placed, casing left in hole, statement of mud volumes used and the current status of surface restoration operations.

Pursuant to *R649-3-19*, operator will conduct a stabilized production test of at least 24 hours no later than fifteen (15) days following the completion of well. Lessees and operators are authorized to vent/flare gas during first calendar month after initial well evaluation tests and/or the production of three (3) MMCF of gas, whichever occurs first. An application must be filed with the DOGM, and approval received, for any venting /flaring of gas beyond the initial thirty (30) day or otherwise authorized test period.

Pursuant to *R649-2-2*, lessees and operators have the responsibility to see that their exploration, development, production, and construction operations are conducted in such a manner as to conserve the natural resources of oil and gas in the state, to protect human health and the environment, to prevent waste, to protect the correlative rights of all owners and to realize the greatest ultimate recovery of oil and gas.

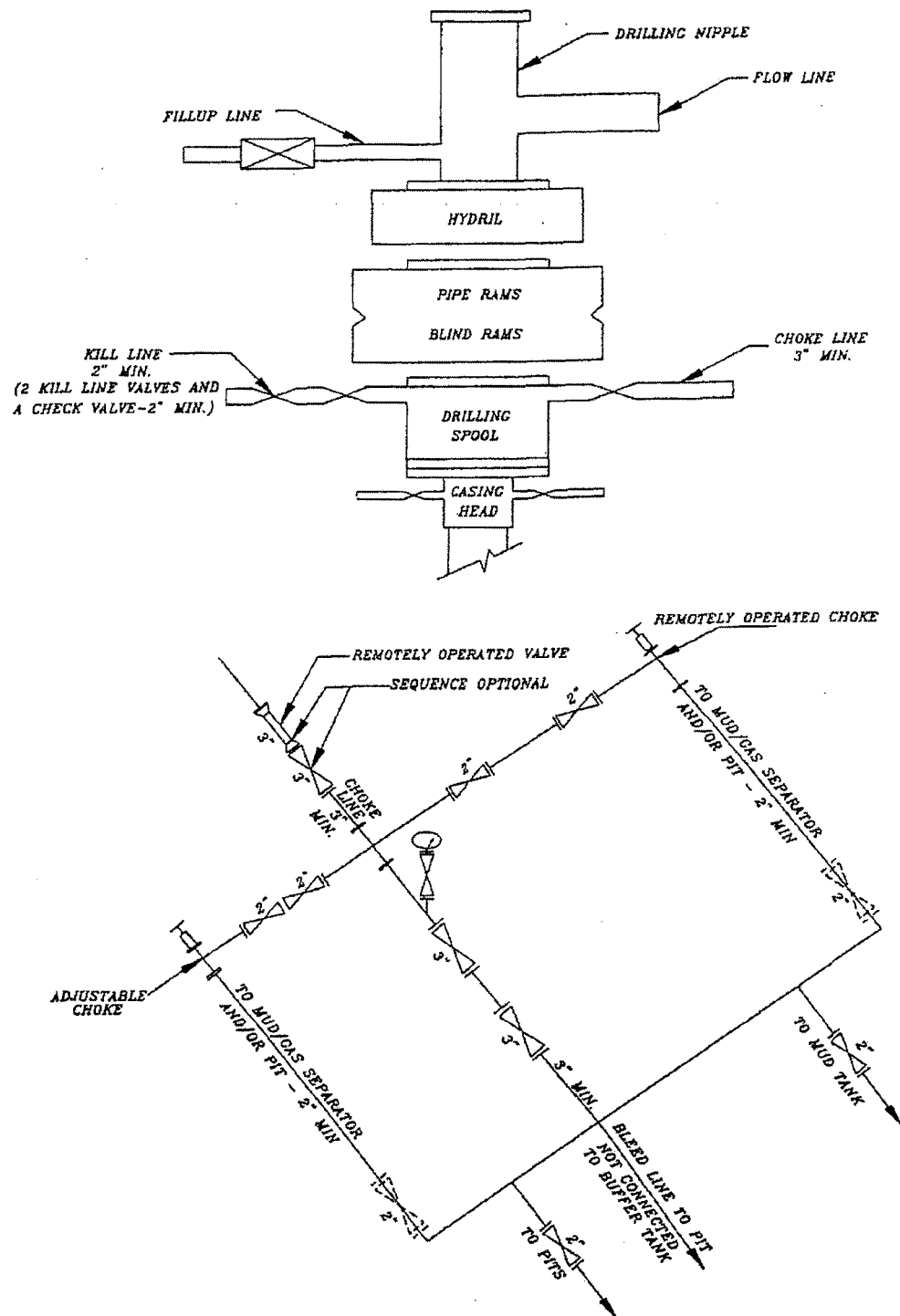
Date: July 20, 2007

Prepared by:

A handwritten signature in black ink, appearing to read "Eric Noblitt", is written over a horizontal line.

Eric Noblitt, Agent  
Royale Energy, Inc.

# 5M BOP STACK and CHOKE MANIFOLD SYSTEM



STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 4A

Bond No. 291395  
Premium: \$6,000.00

**SURETY BOND**

**KNOW ALL MEN BY THESE PRESENTS:**

That we (operator name) ROYALE ENERGY INC as Principal,  
and

(surety name) AMERICAN CONTRACTORS INDEMNITY COMPANY as Surety, duly authorized  
and qualified to do business in the State of Utah, are held and firmly bound unto the State of Utah in the sum of:

ONE HUNDRED TWENTY THOUSAND AND NO/100THS dollars (\$ \$120,000.00 )  
lawful money of the United States, payable to the Director of the Division of Oil, Gas and Mining, as agent of the State of Utah, for the use and  
benefit of the State of Utah for the faithful payment of which we bind ourselves, our heirs, executors, administrators and successors, jointly and  
severally by these presents.

**THE CONDITION OF THIS OBLIGATION IS SUCH THAT, WHEREAS** the Principal is or will be engaged in the drilling, redrilling, deepening,  
repairing, operating, and plugging and abandonment of a well or wells and restoring the well site or sites in the State of Utah for the purposes of  
oil or gas production and/or the injection and disposal of fluids in connection therewith for the following described land or well:

☒ Blanket Bond: To cover all wells drilled in the State of Utah

☐ Individual Bond: Well No: \_\_\_\_\_  
Section: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
County: \_\_\_\_\_, Utah

**NOW, THEREFORE**, if the above bounden Principal shall comply with all the provisions of the laws of the State of Utah and the rules, orders and  
requirements of the Board of Oil, Gas and Mining of the State of Utah, including, but not limited to the proper plugging and abandonment of wells  
and well site restoration, then this obligation is void; otherwise, the same shall be and remain in full force and effect.

**IN TESTIMONY WHEREOF**, said Principal has hereunto subscribed its name and has caused this instrument to be signed by its duly authorized  
officers and its corporate or notary seal to be affixed this

14<sup>th</sup> day of June, 2006

(Corporate or Notary Seal here)

**ROYALE ENERGY INC**

Principal (company name)

By

Donald H. Hosmer, President  
Name (print) Title

[Signature]  
Signature

Attestee: \_\_\_\_\_ Date: \_\_\_\_\_

**IN TESTIMONY WHEREOF**, said Surety has caused this instrument to be signed by its duly authorized officers and its corporate or notary seal  
to be affixed this

8<sup>TH</sup> day of JUNE, 2006

(Corporate or Notary Seal here)

**AMERICAN CONTRACTORS INDEMNITY COMPANY**

Surety Company (Attach Power of Attorney)

By

CARLA M. ALLEN ATTORNEY-IN-FACT  
Name (print) Title

[Signature]  
Signature

Attestee: \_\_\_\_\_ Date: \_\_\_\_\_

1081 Camino Del Rio South, Suite 107

Surety Mailing Address

San Diego

CA

92108

City

State

Zip

# STATE OF UTAH -- DIVISION OF WATER RIGHTS -- DATA PRINT OUT for t31712(49-123)

(WARNING: Water Rights makes NO claims as to the accuracy of this data.) RUN DATE: 03/23/2007 Page 1

CHANGE: t31712

WATER RIGHT: 49-123 CERT. NO.:

AMENDATORY? No

BASE WATER RIGHTS: 49-123

RIGHT EVIDENCED BY: 49-123(A8815)

CHANGES: Point of Diversion [ ], Place of Use [X], Nature of Use [X], Reservoir Storage [ ].

NAME: Burt and Christine DeLambert  
ADDR: P. O. Box 607  
Vernal UT 84078  
INTEREST: 100% REMARKS:

FILED: 07/11/2006 PRIORITY: 07/11/2006 ADV BEGAN: ADV ENDED: NEWSPAPER: No Adv Required  
ProtestEnd: PROTESTED: [No] HEARING HLD: SE ACTION: [Approved] ActionDate: 07/17/2006 PROOF DUE:  
EXTENSION: ELEC/PROOF: ELEC/PROOF: CERT/WUC: LAP, ETC: 08/01/2007 PROV LETTER:  
RENOVATE: RECON REQ: TYPE: ]

Status: Approved

\*\*\*\*\* HERETOFORE \*\*\*\*\*  
\*\*\*\*\* HEREAFTER \*\*\*\*\*

FLOW: 0.9034 cfs	FLOW: 20.0 acre-feet
SOURCE: A Spring Branch in Main Canyon	SOURCE: Unnamed Spring
COUNTY: Uintah	COUNTY: Uintah COM DESC: Main Canyon-Book Cliffs
	Water will be pumped into trucks and hauled to place of use.

POINT(S) OF DIVERSION ----->	SAME AS HERETOFORE
Point Surface:	
(1) N 2870 ft E 16 ft from SW cor, Sec 32, T 15S, R 23E, SLBM	
Dvrtng Wks: Earth & Brush Dam	
Source:	

PLACE OF USE ----->	CHANGED as follows:																								
<table border="1"> <tr> <td>--NW--</td> <td>--NE--</td> <td>--SW--</td> <td>--SE--</td> </tr> <tr> <td>IN N S S I</td> <td>IN N S S I</td> <td>IN N S S I</td> <td>IN N S S I</td> </tr> <tr> <td>W E W E</td> <td>W E W E</td> <td>W E W E</td> <td>W E W E</td> </tr> </table>	--NW--	--NE--	--SW--	--SE--	IN N S S I	IN N S S I	IN N S S I	IN N S S I	W E W E	W E W E	W E W E	W E W E	<table border="1"> <tr> <td>--NW--</td> <td>--NE--</td> <td>--SW--</td> <td>--SE--</td> </tr> <tr> <td>IN N S S I</td> <td>IN N S S I</td> <td>IN N S S I</td> <td>IN N S S I</td> </tr> <tr> <td>W E W E</td> <td>W E W E</td> <td>W E W E</td> <td>W E W E</td> </tr> </table>	--NW--	--NE--	--SW--	--SE--	IN N S S I	IN N S S I	IN N S S I	IN N S S I	W E W E	W E W E	W E W E	W E W E
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--NW--	--NE--	--SW--	--SE--																						
IN N S S I	IN N S S I	IN N S S I	IN N S S I																						
W E W E	W E W E	W E W E	W E W E																						
Sec 30 T 15S R 23E SLBM	ALL T 15S R 23E SLBM																								
Sec 31 T 15S R 23E SLBM	ALL T 15S R 24E SLBM																								
	ALL T 16S R 23E SLBM																								
	ALL T 16S R 24E SLBM																								

NATURE OF USE ----->	CHANGED as follows:
SUPPLEMENTAL to Other Water Rights: No	SUPPLEMENTAL to Other Water Rights: No
IRR: 64.0400 acs Sol/Sup:	acs USED 03/01 - 10/31
	OTH: OIL EXPLORATION: drilling and completion of oil/gas wells in South Book Cliffs-8/1/06-7/31



**ROYALE ENERGY, INC.**  
**VERNAL EQUINOX #2-2**  
LOCATED IN GRAND COUNTY, UTAH  
SECTION 2, T16S, R21E, S.L.B.&M.



PHOTO: VIEW OF LOCATION STAKE

CAMERA ANGLE: WESTERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: EASTERLY



- Since 1964 -

**UELS** Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
435-789-1017 uels@uelsinc.com

**LOCATION PHOTOS**

**07** **02** **07**  
MONTH DAY YEAR

TAKEN BY: J.R.

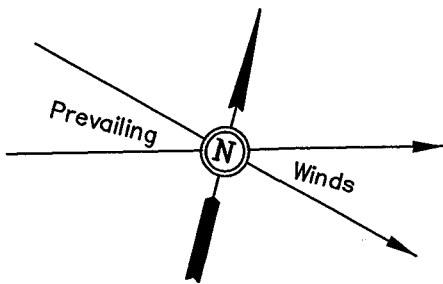
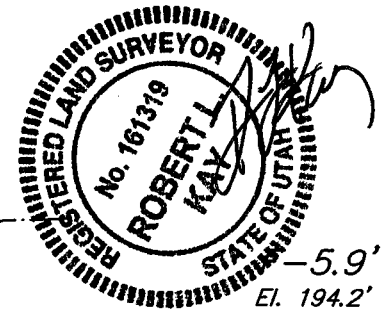
DRAWN BY: Z.L.

REVISED: 00-00-00

**PHOTO**

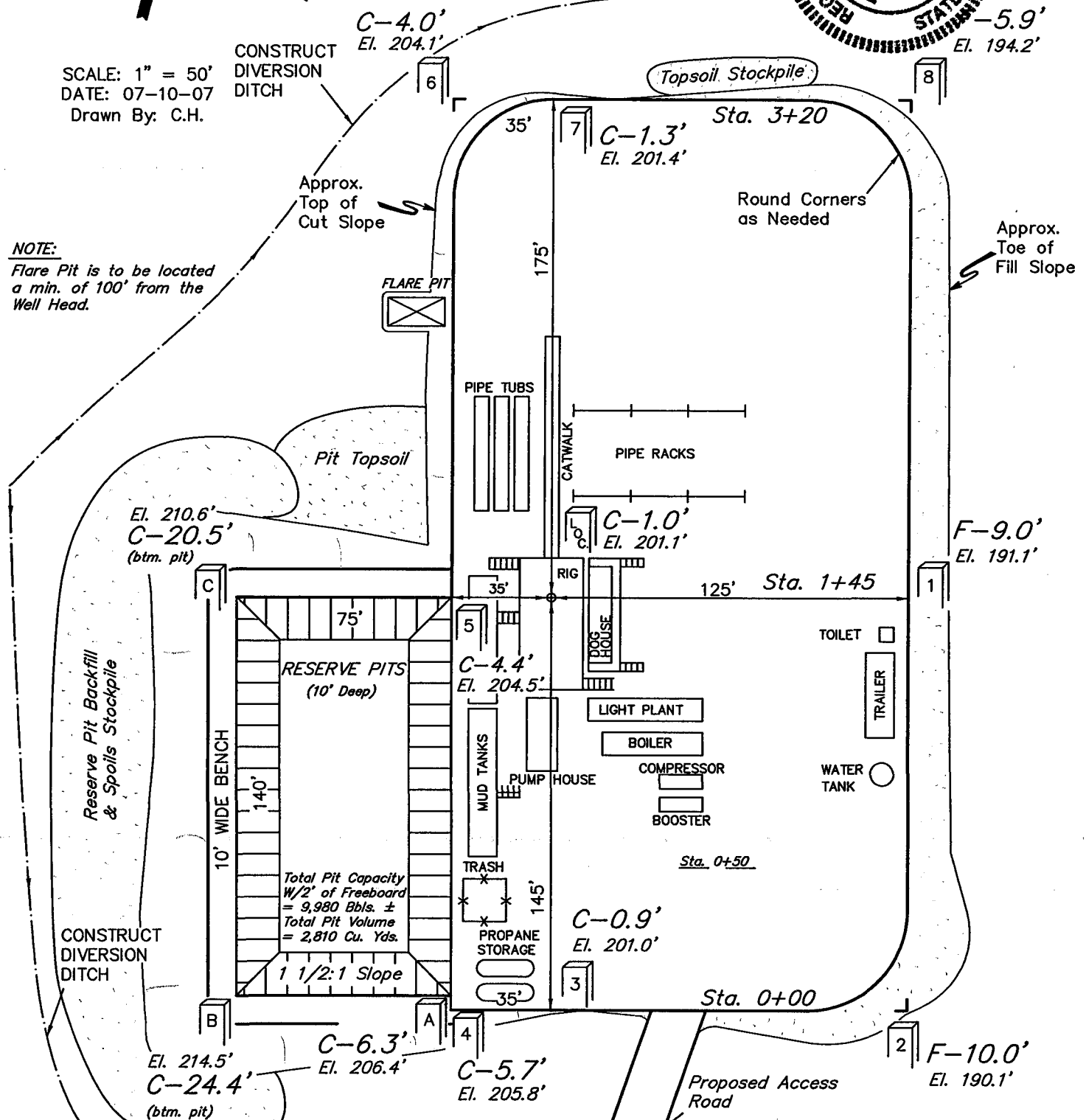
**FIGURE #1**

VERNAL EQUINOX #2-2  
SECTION 2, T16S, R21E, S.L.B.&M.  
832' FSL 2025' FWL



CONSTRUCT  
DIVERSION  
DITCH \

Flare Pit is to be located  
a min. of 100' from the  
Well Head.



Elev. Ungraded Ground At Loc. Stake = 7201.1'  
FINISHED GRADE ELEV. AT LOC. STAKE = 7200.1'

**UINTAH ENGINEERING & LAND SURVEYING**  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017



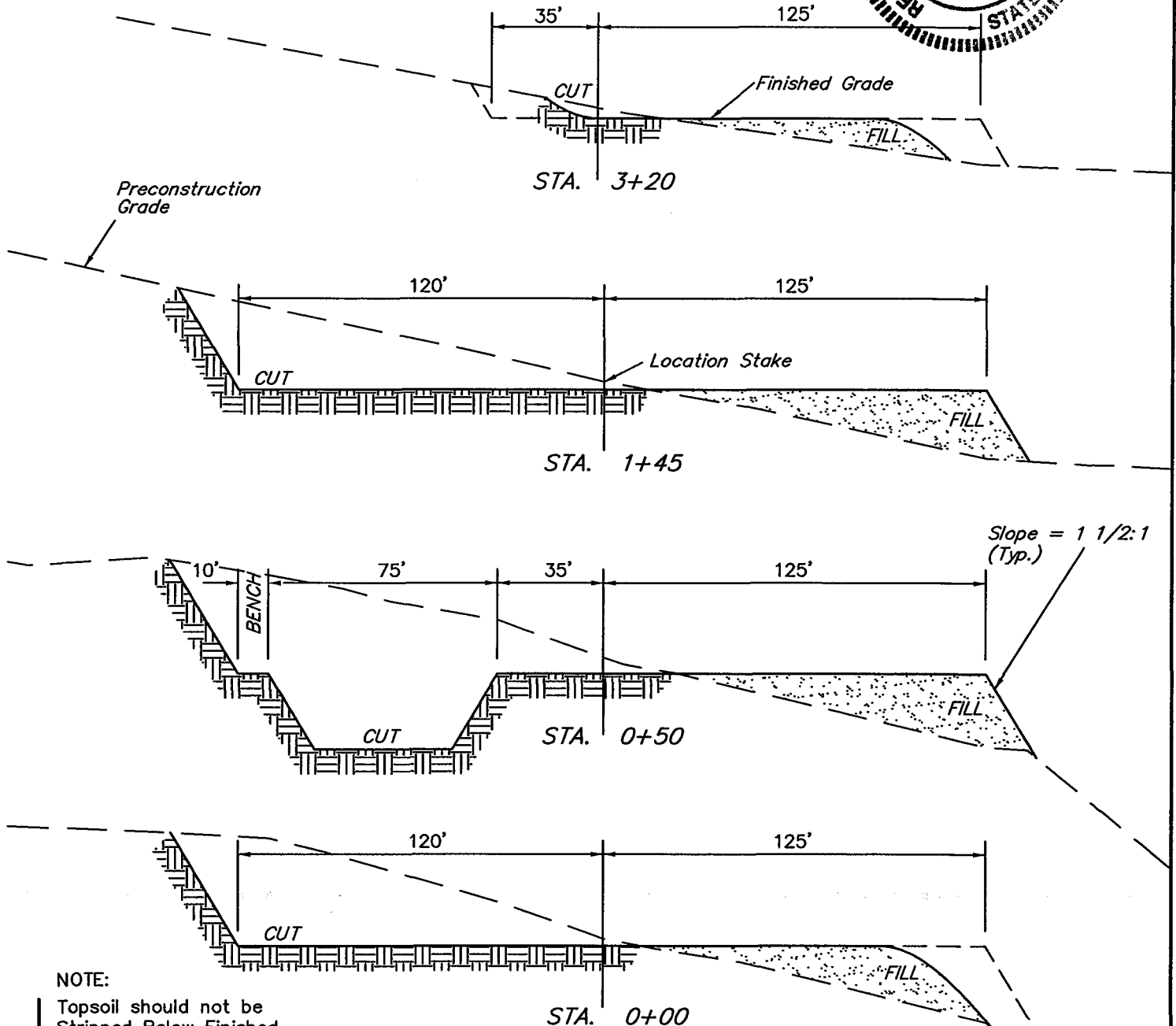
# ROYALE ENERGY, INC.

FIGURE #2

## TYPICAL CROSS SECTIONS FOR VERNAL EQUINOX #2-2 SECTION 2, T16S, R21E, S.L.B.&M. 832' FSL 2025' FWL

1" = 20'  
X-Section  
Scale  
1" = 50'

DATE: 07-10-07  
Drawn By: C.H.



### NOTE:

Topsoil should not be Stripped Below Finished Grade on Substructure Area.

\* NOTE:  
FILL QUANTITY INCLUDES  
5% FOR COMPACTION

### APPROXIMATE YARDAGES

CUT	
(6") Topsoil Stripping	= 1,520 Cu. Yds.
Remaining Location	= 9,850 Cu. Yds.
<b>TOTAL CUT</b>	<b>= 11,370 CU.YDS.</b>
<b>FILL</b>	<b>= 7,890 CU.YDS.</b>

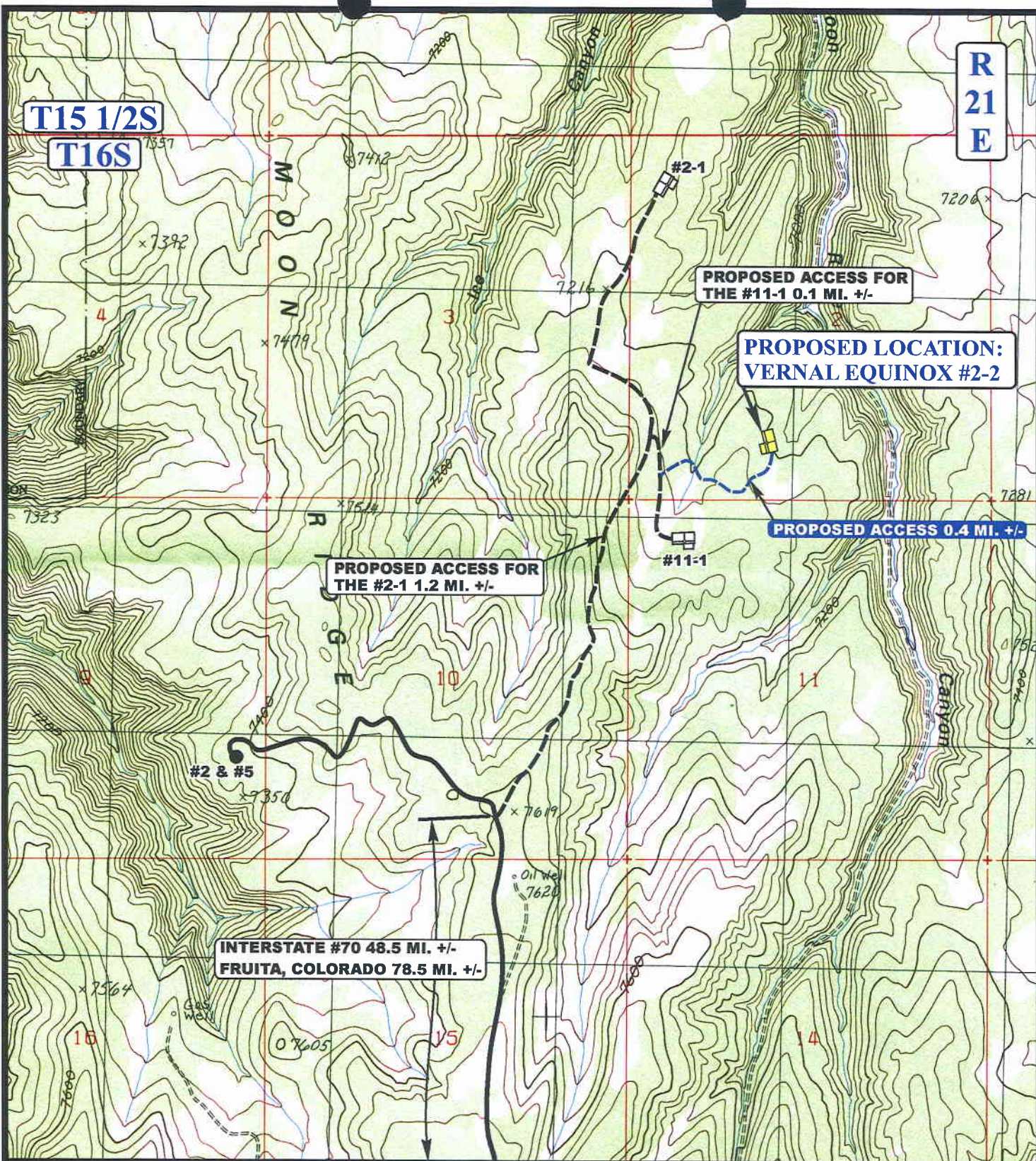
EXCESS MATERIAL	= 3,480 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	= 2,930 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	= 550 Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

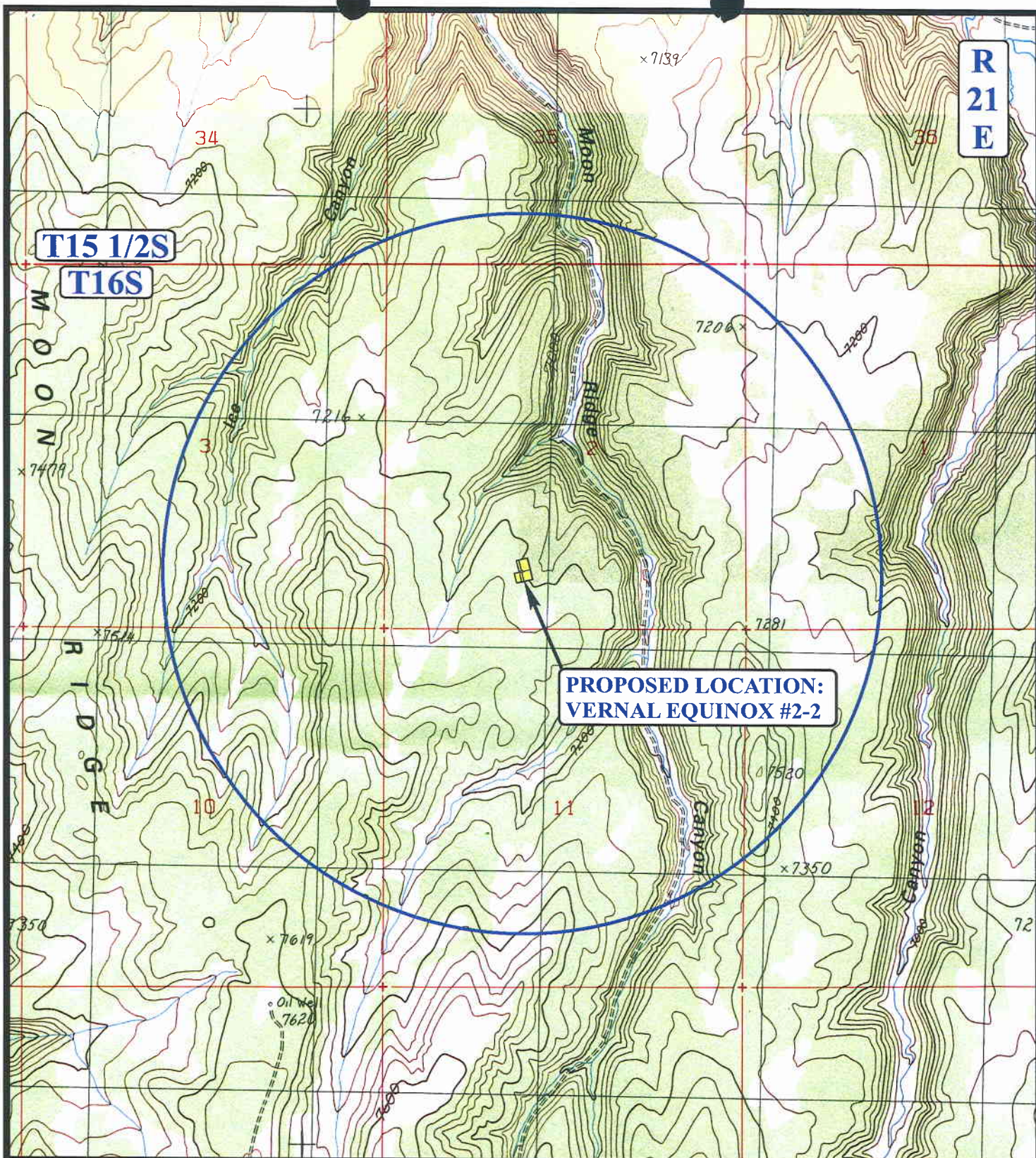




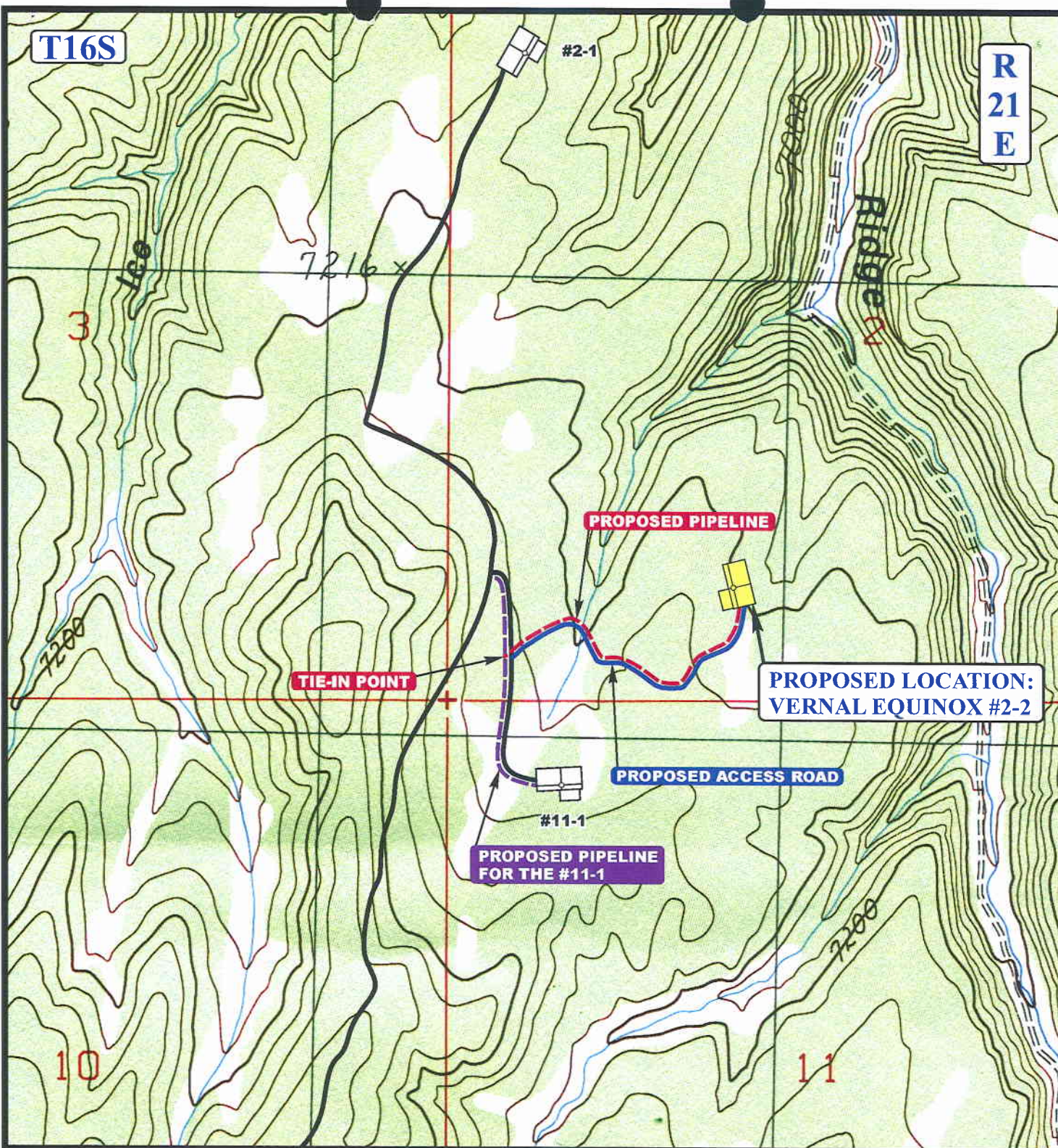












APPROXIMATE TOTAL PIPELINE DISTANCE = 2,259' +/-

**LEGEND:**

- PROPOSED ACCESS ROAD
- PROPOSED PIPELINE
- PROPOSED PIPELINE (SERVICING OTHER WELLS)



**ROYALE ENERGY, INC.**

**VERNAL EQUINOX #2-2**  
**SECTION 2, T16S, R21E, S.L.B.&M.**  
**832' FSL 2025' FWL**



**Uintah Engineering & Land Surveying**  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813

**TOPOGRAPHIC**  
**MAP**

**07 02 07**  
MONTH DAY YEAR

SCALE: 1" = 1000' DRAWN BY: Z.L. REVISED: 07-12-07





**WORKSHEET**  
**APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 07/27/2007

API NO. ASSIGNED: 43-019-31552

WELL NAME: VERNAL EQUINOX 2-2

OPERATOR: ROYALE ENERGY, INC. ( N2465 )

PHONE NUMBER: 619-881-2800

CONTACT: ERIC NOBLITT

PROPOSED LOCATION:

SESW 02 160S 210E

SURFACE: 0832 FSL 2025 FWL

BOTTOM: 0832 FSL 2025 FWL

COUNTY: GRAND

LATITUDE: 39.43980 LONGITUDE: -109.5720

UTM SURF EASTINGS: 622892 NORTHINGS: 4366348

FIELD NAME: UNDESIGNATED ( 2 )

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering	DKD	8/31/07
Geology		
Surface		

LEASE TYPE: 3 - State

LEASE NUMBER: ML-46110

SURFACE OWNER: 3 - State

PROPOSED FORMATION: MRSN

COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

☒ Plat  
☒ Bond: Fed[] Ind[] Sta[] Fee[]  
(No. 291395 )  
☒ Potash (Y/N)  
☒ Oil Shale 190-5 (B) or 190-3 or 190-13  
☒ Water Permit  
(No. T30440 )  
☒ RDCC Review (Y/N)  
(Date: )  
☒ Fee Surf Agreement (Y/N)  
☒ Intent to Commingle (Y/N)

LOCATION AND SITING:

\_\_\_ R649-2-3.  
Unit: MOON CANYON  
☒ R649-3-2. General  
Siting: 460 From Qtr/Qtr & 920' Between Wells  
\_\_\_ R649-3-3. Exception  
\_\_\_ Drilling Unit  
Board Cause No: \_\_\_\_\_  
Eff Date: \_\_\_\_\_  
Siting: \_\_\_\_\_  
\_\_\_ R649-3-11. Directional Drill

COMMENTS: Needs Prestige (08-09-07)

STIPULATIONS: 1- Spacing Strip  
2- STATEMENT OF BASIS

T15.5S R21E

T16S R21E

VERNAL  
EQUINOX 2-1

## MOON CANYON UNIT

2

VERNAL  
EQUINOX 2-2

VERNAL  
EQUINOX 11-1

11

OPERATOR: ROYALE ENERGY INC (N2465)

SEC: 2 T.16S R. 21E

FIELD: UNDESIGNATED (002)

COUNTY: GRAND

SPACING: R649-3-2 / GENERAL SITING

**Field Status**

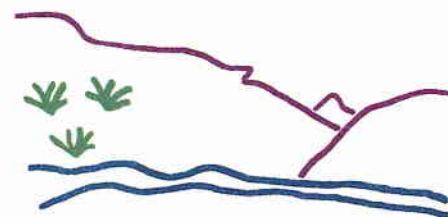
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- PROPOSED
- STORAGE
- TERMINATED

**Unit Status**

- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PENDING
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

**Wells Status**

- GAS INJECTION
- GAS STORAGE
- LOCATION ABANDONED
- NEW LOCATION
- PLUGGED & ABANDONED
- PRODUCING GAS
- PRODUCING OIL
- SHUT-IN GAS
- SHUT-IN OIL
- TEMP. ABANDONED
- TEST WELL
- WATER INJECTION
- WATER SUPPLY
- WATER DISPOSAL
- DRILLING



Utah Oil Gas and Mining



PREPARED BY: DIANA MASON  
DATE: 2-AUGUST-2007

# Application for Permit to Drill

## Statement of Basis

8/16/2007

Utah Division of Oil, Gas and Mining

Page 1

<b>APD No</b>	<b>API WellNo</b>	<b>Status</b>	<b>Well Type</b>	<b>Surf Ownr</b>	<b>CBM</b>
474	43-019-31552-00-00		GW	S	No
<b>Operator</b>	ROYALE ENERGY, INC.		<b>Surface Owner-APD</b>		
<b>Well Name</b>	VERNAL EQUINOX 2-2		<b>Unit</b>		
<b>Field</b>	UNDESIGNATED		<b>Type of Work</b>		
<b>Location</b>	SESW 2 16S 21E S 832 FSL 2025 FWL GPS Coord (UTM) 622892E 4366348N				

### Geologic Statement of Basis

A well at this location will spud into the Tertiary age lower part of the Parachute Creek Member of the Green River Formation. A poorly to moderately permeable soil is developed on the Parachute Creek Member of the Green River Formation. The Parachute Creek Member is regarded as an aquifer in the Uinta Basin and is likely to contain a high quality ground water resource. In addition, the Wasatch Formation (Wasatch Aquifer) is closely subjacent. The base of moderately saline ground water is found at approximately 2,900', Total Depth (TD). The Operator proposes to set 9 5/8" surface casing at 2,000' TD and 7" intermediate casing at 6,600' TD. According to the proposed cementing program they will cement the surface casing up to the surface, including one-inching to surface if needed. It is recommended that the cement program for the intermediate casing include a requirement for cementing to 100' above the base of the surface casing (~1900"TD) in order to isolate the low quality water from the high quality water above. No underground water rights exist within a mile of the location.

Chris Kierst  
APD Evaluator

8/16/2007  
Date / Time

### Surface Statement of Basis

On-site evaluation conducted August 9, 2007. Participants included: Bart Kettle (Division of Oil, Gas and Mining), Ed Bonner (School and Institutional Trust Land Administration), Eric Noblitt (Agent for Royale), and Rod Weathermon (Halliburton). Inspecting proposed project site prior to scheduled on-site evaluation and providing comments: Ben Williams (Division of Wildlife Resources). Invited and unable to attend Glen Donaldson (Royale)

Due to resource damage resulting from drilling activities conducted during spring thaw on the Bookcliff divide in previous years, it is recommended that drilling be avoided during the months of February through April. DWR recommending that no drilling or construction activity occur November 15 to April 15. Reserve pit should be fenced on all four sides upon the removal of the drilling rig to prevent entrapment of wildlife, livestock and wild horses. Excess material accrued in the construction of the well pad may be used to increase the pad size up to fifteen feet on the northeast corner due to help accommodate larger rig then originally anticipated.

Bart Kettle  
Onsite Evaluator

8/9/2007  
Date / Time

### Conditions of Approval / Application for Permit to Drill

<b>Category</b>	<b>Condition</b>
Pits	A synthetic liner with a minimum thickness of 12 mils shall be properly installed and maintained in the reserve pit.
Pits	Fence reserve pit immediately upon removal of the drilling rig.

# **ON-SITE PREDRILL EVALUATION**

## **Utah Division of Oil, Gas and Mining**

**Operator** ROYALE ENERGY, INC.  
**Well Name** VERNAL EQUINOX 2-2  
**API Number** 43-019-31552-0 **APD No** 474 **Field/Unit** UNDESIGNATED  
**Location:** 1/4,1/4 SESW **Sec** 2 **Tw** 16S **Rng** 21E 832 FSL 2025 FWL  
**GPS Coord (UTM)** **Surface Owner**

### **Participants**

Bart Kettle (DOGM), Ed Bonner (SITLA), Eric Noblitt (Agent for Royale), and Rod Weathermon (Halliburton). Invited but choosing not to attend Glen Donaldson (Royale). Inspecting the proposed site prior to scheduled on-site evaluation Ben Williams (DWR).

### **Regional/Local Setting & Topography**

Project site is 60 miles northwest of Frutia Colorado in Grand County Utah. The project site is located near the Bookcliffs divide on the north side above Meadow Creek in a 14-16" precept zone. Pinyon/Juniper rangelands dominate the surroundings. Many deep rocky pinyon/juniper, Douglas fir and mountain browse canyons surround the well site. Topography to the south rises to the Bookcliff divide, and then drops off quickly into a narrow band of P/J woodlands, with extensive salt scrub clay flats in the Grand Valley below. Slopes are more gradual to the north, with extensive P/J woodland eventually giving way to the salt scrub communities bordering the White and Green Rivers. Project site is located towards the end of a long mesa overlooking the Meadow Creek drainage. No perennial water was observed during the on-site inspection, however Meadow Creek, a perennial stream, is located within 1/2 mile of the well site. Drainages in the immediate area are ephemeral in nature. Perennial and intermittent springs are shown on 7.5 min maps near the bottom of adjacent canyons. Access to the well site can be gained via the Moon Ridge Road either from V Canyon or the Bookcliff Divide Roads.

### **Surface Use Plan**

#### **Current Surface Use**

Grazing  
Wildlife Habitat

#### **New Road**

Miles	Well Pad		Src Const Material	Surface Formation
	Width	Length	Onsite	GRRV

#### **Ancillary Facilities Y**

Man camp will be used to drill this well and four others proposed in the project area. Royale Energy, Inc has obtained a surface use agreement with SITLA to set up man camp 4 miles from proposed well site.

### **Waste Management Plan Adequate? Y**

### **Environmental Parameters**

#### **Affected Floodplains and/or Wetland N**

#### **Flora / Fauna**

##### **Flora**

Forbs: Spring parsley, spiny phlox

Grass: Sandburg's blue grass, needle and thread grass, bottle brush squirrel tail, western wheat grass, Indian rice grass, Elk sedge, blue bunch wheat grass, thickspike wheat grass.

Shrubs: Birch leaf mountain mahogany, Wyoming sage

Trees: Two needle pinyon, Utah juniper, Douglas fir.



#### Fauna

Elk, mule deer, black bear, cougar, bobcat, cotton tail rabbits, black tail jack rabbit, pinyon jay, canyon wren, Clarks nutcracker, black capped chickadee, deer mouse. Potential for many species of rodents, song birds, raptors and reptiles.

#### Soil Type and Characteristics

Gray clay and shallow shale's, many sandstone fragments, some orange eolian deposition

#### Erosion Issues N

Soils slightly erosive when disturbed, less then 2" of "A" horizon of much of proposed project area.

#### Sedimentation Issues N

#### Site Stability Issues N

#### Drainage Diverson Required N

#### Berm Required? N

#### Erosion Sedimentation Control Required? N

Paleo Survey Run? Y    Paleo Potental Observed? N    Cultural Survey Run? Y    Cultural Resources? N

#### Reserve Pit

##### Site-Specific Factors

##### Site Ranking

Distance to Groundwater (feet)	>200	0
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)	>1320	0
Native Soil Type	Mod permeability	10
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)	10 to 20	5
Affected Populations	<10	0
Presence Nearby Utility Conduits	Not Present	0
Final Score		20   1   Sensitivity Level

#### Characteristics / Requirements

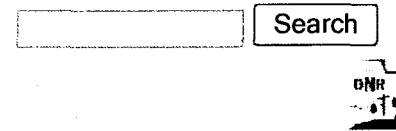
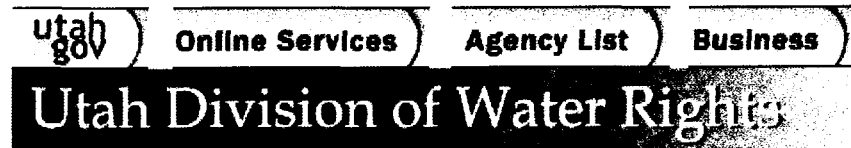
Closed Loop Mud Required? N    Liner Required? Y    Liner Thickness 12    Pit Underlayment Required? N

#### Other Observations / Comments

Division of Wildlife Resources (DWR) comments that the project area lies within High value mule deer summer range and critical elk summer range. DWR recommends that Royale move the access road out of the sage brush flat into P/J interface. School and Institutional Trust Lands Administration (SITLA) concerned about impacts of rig traffic on roads during wet season of the year. Recommending Royale avoid drilling during the months of Dec-April. Division of Oil, Gas and Mining concerned about impacts caused in the region when operators attempt to drill wells during the spring break up period occurring from Feb. early April. DOGM recommends that Royale be prepared to deal with powdery road conditions and dust problems during the months of May-July.

Bart Kettle  
Evaluator

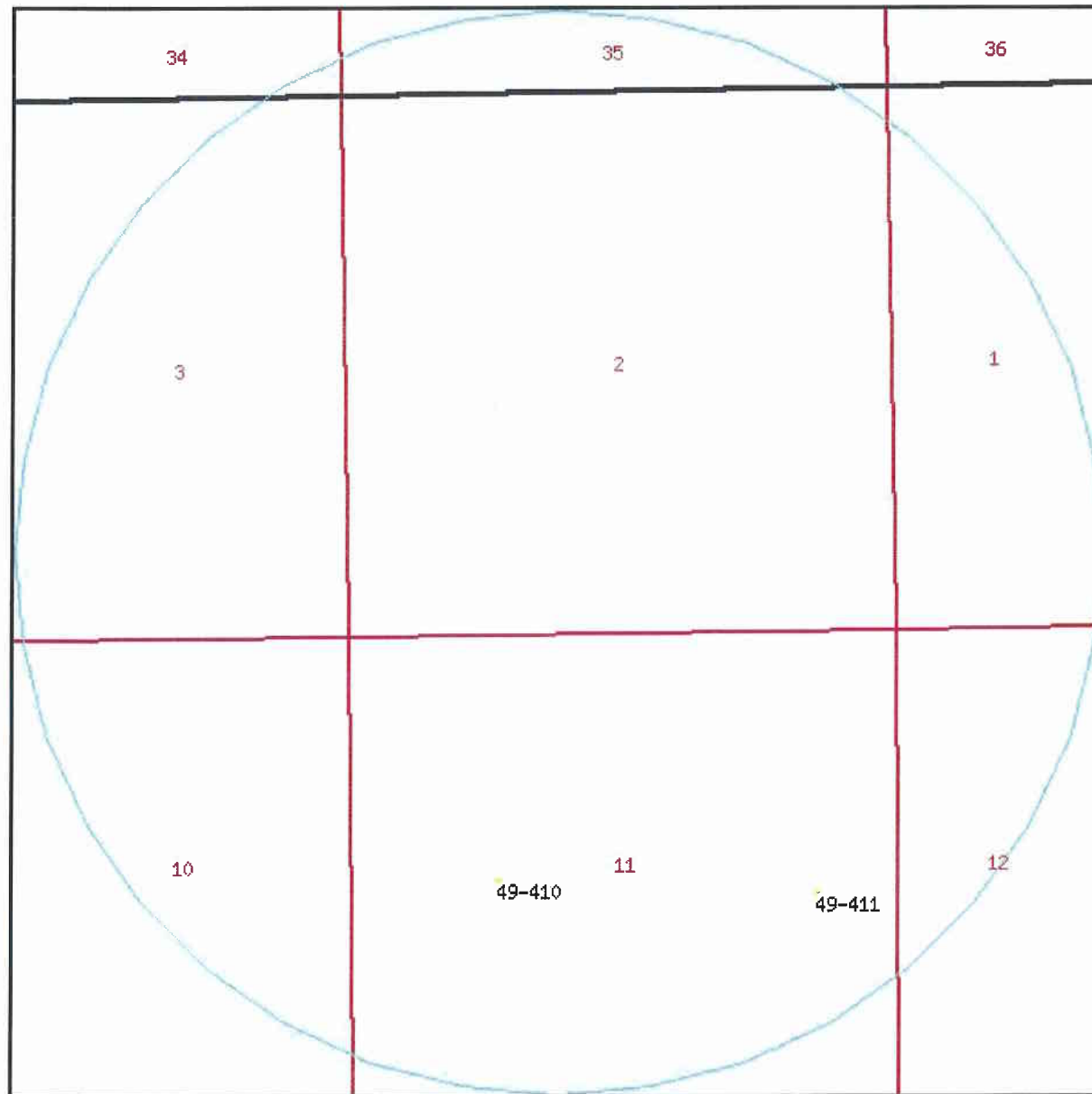
8/9/2007  
Date / Time



## WRPLAT Program Output Listing

Version: 2007.04.13.01      Rundate: 08/16/2007 04:12 PM

Radius search of 5280 feet from a point N832 E2025 from the SW corner, section 02, Township 16S, Range 21E, SL b&m Criteria:wrtypes=W,C,E  
podtypes=S,U,Sp status=U,A,P usetypes=all



0 700 1400 2100 2800 ft

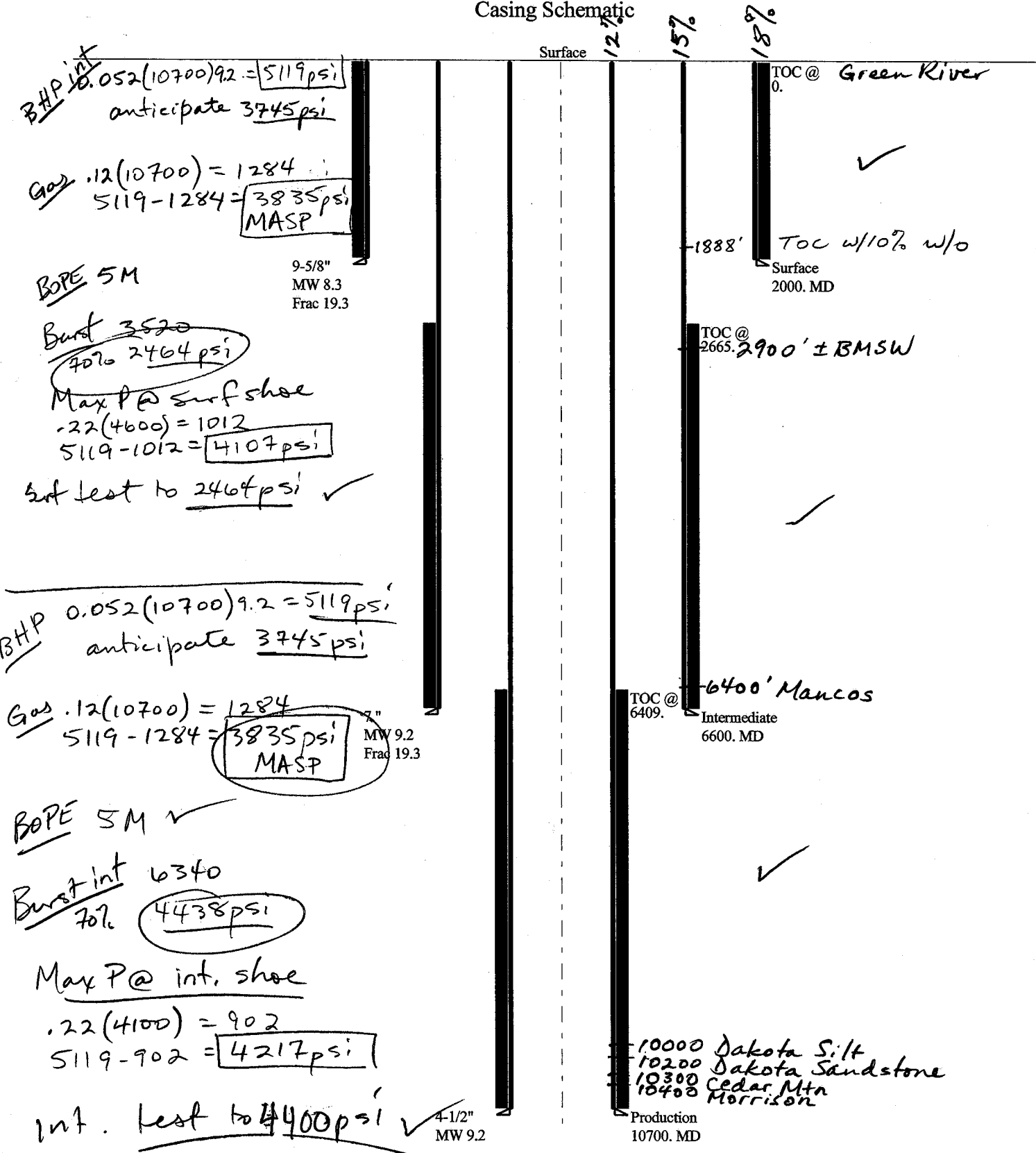
### Water Rights

WR Number	Diversion Type/Location	Well Log	Status	Priority	Uses	CFS	ACFT	Owner Name
<u>49-410</u>	Surface  N300 E1400 W4 11 16S 21E SL		P	1861	OS	0.015	0.000	USA BUREAU OF LAND MANAGEMENT  170 SOUTH 500 EAST
<u>49-411</u>	Surface  N100 W800 E4 11 16S 21E SL		P	1861	OS	0.015	0.000	VERNAL DISTRICT USA BUREAU OF LAND MANAGEMENT  170 SOUTH 500 EAST

[Natural Resources](#) | [Contact](#) | [Disclaimer](#) | [Privacy Policy](#) | [Accessibility Policy](#)

# 2007-08 Royale Vernal Equinox 2-2

## Casing Schematic



✓ Adequate OKD 8/31/07

Well name:	<b>2007-08 Royale Vernal Equinox 2-2</b>	
Operator:	<b>Royale Energy Inc.</b>	Project ID:
String type:	<b>Surface</b>	<b>43-019-31552</b>
Location:	<b>Grand County</b>	

**Design parameters:**
**Collapse**

Mud weight: 8.300 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**
**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 65 °F  
Bottom hole temperature: 93 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 185 ft

Cement top: Surface

**Burst**

Max anticipated surface pressure: 1,760 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 2,000 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Tension is based on air weight.  
Neutral point: 1,754 ft

**Non-directional string.**
**Re subsequent strings:**

Next setting depth: 6,600 ft  
Next mud weight: 9.200 ppg  
Next setting BHP: 3,154 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 2,000 ft  
Injection pressure: 2,000 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	2000	9.625	36.00	K-55	ST&C	2000	2000	8.765	868.1

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	862	2020	2.343	2000	3520	1.76	72	423	5.88 J

Prepared Helen Sadik-Macdonald  
by: Div of Oil, Gas & Minerals

Phone: 801-538-5357

Date: August 27, 2007  
Salt Lake City, Utah

**ENGINEERING STIPULATIONS: NONE**

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Collapse is based on a vertical depth of 2000 ft, a mud weight of 8.3 ppg. The casing is considered to be evacuated for collapse purposes.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

Well name:	<b>2007-08 Royale Vernal Equinox 2-2</b>	
Operator:	<b>Royale Energy Inc.</b>	Project ID:
String type:	Intermediate	43-019-31552
Location:	Grand County	

**Design parameters:**
**Collapse**

Mud weight: 9.200 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**
**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 65 °F  
Bottom hole temperature: 157 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,500 ft

Cement top: 2,665 ft

**Burst**

Max anticipated surface pressure: 2,760 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP 4,212 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Tension is based on air weight.  
Neutral point: 5,687 ft

**Non-directional string.**
**Re subsequent strings:**

Next setting depth: 10,700 ft  
Next mud weight: 9.200 ppg  
Next setting BHP: 5,114 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 6,600 ft  
Injection pressure: 6,600 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	6600	7	23.00	N-80	LT&C	6600	6600	6.25	1458.8

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	3154	3830	1.214	4212	6340	1.51	152	442	2.91 J

Prepared Helen Sadik-Macdonald  
by: Div of Oil, Gas & Minerals

Phone: 801-538-5357

Date: August 27, 2007  
Salt Lake City, Utah

**ENGINEERING STIPULATIONS: NONE**

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.  
Collapse is based on a vertical depth of 6600 ft, a mud weight of 9.2 ppg. The casing is considered to be evacuated for collapse purposes.  
Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*



Well name:	<b>2007-08 Royale Vernal Equinox 2-2</b>	
Operator:	<b>Royale Energy Inc.</b>	Project ID:
String type:	<b>Production</b>	<b>43-019-31552</b>
Location:	<b>Grand County</b>	

**Design parameters:**
**Collapse**

Mud weight: 9.200 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**
**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 65 °F  
Bottom hole temperature: 215 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 368 ft

Cement top: 6,409 ft

**Burst**

Max anticipated surface pressure: 2,760 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP 5,114 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

**Non-directional string.**

Tension is based on air weight.  
Neutral point: 9,228 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	10700	4.5	11.60	P-110	LT&C	10700	10700	3.875	933.8

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	5114	7580	1.482	5114	10690	2.09	124	279	2.25 J

Prepared Helen Sadik-Macdonald  
by: Div of Oil, Gas & Minerals

Phone: 801-538-5357

Date: August 27, 2007  
Salt Lake City, Utah

**ENGINEERING STIPULATIONS: NONE**

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Collapse is based on a vertical depth of 10700 ft, a mud weight of 9.2 ppg. The casing is considered to be evacuated for collapse purposes.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

***Eric Noblitt***  
*2275 Logos Court, Suite B-1*  
*Grand Junction, CO. 81505*

July 24, 2007

Ms. Diana Mason  
Division of Oil, Gas and Mining  
Box 14581  
Salt Lake City, Utah 84114-5801

Re: Application For Permit To Drill  
Royale Energy, Inc.'s;

Vernal Equinox 2-2  
Sec.2-T16S-R21E  
Grand County, Utah  
State Lease # ML-46110

Dear Diana:

Enclosed, please find in duplicate, an APD for Royale Energy's above described well. The Class III Cultural Resource Inventory report will be sent under separate cover from Grand River Institute to SITLA.

Please do not hesitate to contact me at (970) 245-3951 regarding any questions you may have regarding these applications.

Sincerely,



Eric Noblitt, Agent  
Royale Energy, Inc.

c.c. Glenn Donaldson – Royale Energy, Inc.

**RECEIVED**  
**JUL 27 2007**  
**DIV. OF OIL, GAS & MINING**

# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:  
3160  
(UT-922)

August 3, 2007

### Memorandum

To: Assistant District Manager Minerals, Vernal District  
From: Michael Coulthard, Petroleum Engineer  
Subject: 2007 Plan of Development Moon Canyon, Grand  
County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following well is planned for calendar year 2007 within the Moon Canyon Unit, Grand County, Utah.

API#	WELL NAME	LOCATION
(Proposed PZ Morrison)		
43-019-31552 Vernal Equinox 2-2 Sec 02 T16S R21E 0832 FSL 2025 FWL		

This office has no objection to permitting the well at this time.

/s/ Michael L. Coulthard

bcc: File - Moon Canyon Unit  
Division of Oil Gas and Mining  
Central Files  
Agr. Sec. Chron  
Fluid Chron

MCoulthard:mc:8-3-07

**CONFIDENTIAL**



JON M. HUNTSMAN, JR.  
Governor

GARY R. HERBERT  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil Gas and Mining

JOHN R. BAZA  
Division Director

September 4, 2007

Royale Energy, Inc.  
7676 Hazard Center Dr.  
San Diego, CA 92108

Re: Vernal Equinox 2-2 Well, 832' FSL, 2025' FWL, SE SW, Sec. 2, T. 16 South, R. 21 East,  
Grand County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-019-31552.

Sincerely,

Gil Hunt  
Associate Director

pab  
Enclosures

cc: Grand County Assessor  
Bureau of Land Management, Moab Office  
SITLA



Operator: Royale Energy, Inc.  
Well Name & Number Vernal Equinox 2-2  
API Number: 43-019-31552  
Lease: ML-46110

Location: SE SW                      Sec. 2                      T. 16 South                      R. 21 East

### Conditions of Approval

#### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### 2. Notification Requirements

The operator is required to notify the Division of Oil, Gas and Mining of the following action during drilling of this well:

- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- 24 hours prior to testing blowout prevention equipment – contact Dan Jarvis
- 24 hours prior to spudding the well – contact Carol Daniels
- Within 24 hours of any emergency changes made to the approved drilling program – contact Dustin Doucet
- Prior to commencing operations to plug and abandon the well – contact Dan Jarvis

The operator is required to get approval from the Division of Oil, Gas and Mining before performing any of the following actions during the drilling of this well:

- Plugging and abandonment or significant plug back of this well – contact Dustin Doucet
- Any changes to the approved drilling plan – contact Dustin Doucet

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at:                      (801) 538-5338 office                      (801) 942-0873 home
- Carol Daniels at:                      (801) 538-5284 office
- Dustin Doucet at:                      (801) 538-5281 office                      (801) 733-0983 home

#### 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.
5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)
6. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED ☐  
(highlight changes)

APPLICATION FOR PERMIT TO DRILL

1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>		5. MINERAL LEASE NO: ML-46110	6. SURFACE: State
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER _____ SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>		7. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
2. NAME OF OPERATOR: Royale Energy, INC		8. UNIT or CA AGREEMENT NAME: Moon Canyon	
3. ADDRESS OF OPERATOR: 7676 Hazard Center Dr CITY San Diego STATE CA ZIP 92108		9. WELL NAME and NUMBER: Vernal Equinox 2-2	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 832' FSL & 2025' FWL AT PROPOSED PRODUCING ZONE: Same		10. FIELD AND POOL, OR WILDCAT: Wildcat	
11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 2 16S 21E			
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 65 Northwest of Fruita, CO		12. COUNTY: Grand	13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 832 ft	16. NUMBER OF ACRES IN LEASE: 640.8	17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) NA	19. PROPOSED DEPTH: 10,700	20. BOND DESCRIPTION: Statewide Bond #291395	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 7201 ft. GR	22. APPROXIMATE DATE WORK WILL START: 9/1/2007	23. ESTIMATED DURATION: 30 days	

24. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT
12-1/4"	9-5/8 K-55 36#	2,000	Class "G" 1200 sx 1.17 15.8 ppg
8-3/4"	7 N-80 23#	6,600	50/50 POZ 890 sx 1.26 14.2 ppg
6-1/4"	4-1/2 P-110 11.60#	10,700	50/50 POZ 533 sx 1.26 14.2 ppg

25. ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER     | <input checked="" type="checkbox"/> COMPLETE DRILLING PLAN                                   |
| <input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER | <input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER |

NAME (PLEASE PRINT) Eric Noblitt TITLE Agent  
SIGNATURE \_\_\_\_\_ DATE 7/20/2007

(This space for State use only)

API NUMBER ASSIGNED: \_\_\_\_\_

APPROVAL: \_\_\_\_\_

ACCEPTED BY BLM FOR  
UNIT PURPOSES ONLY  
OCT 22 2007

08PP0099A

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

CONFIDENTIAL

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: ML = 46110
2. NAME OF OPERATOR: Royale Energy, Inc		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 
3. ADDRESS OF OPERATOR: 7676 Hazard Center Dr. Ste _____ CITY San Diego STATE CA ZIP 92108		7. UNIT or CA AGREEMENT NAME: Moon Canyon
PHONE NUMBER: (619) 881-2800		8. WELL NAME and NUMBER: Vernal Equinox 2-2
4. LOCATION OF WELL FOOTAGES AT SURFACE: 832' FSL, 2025' FWL		9. API NUMBER: 019-31552
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 2 16 21		10. FIELD AND POOL, OR WILDCAT: Wildcat
COUNTY: Grand		STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Royale Energy, Inc. requests a one year extension for its Application for Permit to Drill of above described well.

Approved by the  
Utah Division of  
Oil, Gas and Mining

Date: 09-16-08  
By: [Signature]

NAME (PLEASE PRINT) Glenn Donaldson	TITLE Chief Engineer
SIGNATURE [Signature]	DATE 9/8/2008

(This space for State use only)

COPY SENT TO OPERATOR

Date: 9.17.2008

Initials: KS

(5/2000)

(See Instructions on Reverse Side)

RECEIVED

SEP 11 2008

DIV. OF OIL, GAS & MINING



**Application for Permit to Drill  
Request for Permit Extension  
Validation**

(this form should accompany the Sundry Notice requesting permit extension)

**API:** 43-019-31552  
**Well Name:** Vernal Equinox 2-2  
**Location:** SE SW, Sec. 2 T16 R21E Grand County  
**Company Permit Issued to:** Royale Energy, Inc  
**Date Original Permit Issued:** 9/4/2007

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.

Following is a checklist of some items related to the application, which should be verified.

If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes ☐ No ☐

Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes ☐ No ☒


Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes ☐ No ☒

Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes ☐ No ☒

Has the approved source of water for drilling changed? Yes ☐ No ☒

Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes ☐ No ☒

Is bonding still in place, which covers this proposed well? Yes ☒ No ☐

  
Signature

9/8/2008

Date

Title: Chief Engineer

Representing: Royale Energy, Inc

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SEP 11 2008

DIV. OF OIL, GAS & MINING

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

CONFIDENTIAL

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-46110
2. NAME OF OPERATOR: Royale Energy, Inc		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Moon Canyon
3. ADDRESS OF OPERATOR: 7676 Hazard Center Dr. Ste CITY San Diego STATE CA ZIP 92108		7. UNIT OR CA AGREEMENT NAME: Vernal Equinox 2-2
PHONE NUMBER: (619) 881-2800		8. WELL NAME and NUMBER: 4301931552
10. FIELD AND POOL, OR WILDCAT: Wildcat		

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 832' FSL, 2025' FWL

COUNTY: Grand

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 2 16 21

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Royale Energy, Inc. requests a one year extension for its Application for Permit to Drill of above described well.

Approved by the  
Utah Division of  
Oil, Gas and Mining

Date: 11-03-09

By: [Signature]

COPY SENT TO OPERATOR

Date: 11/16/2009

Initials: KS

NAME (PLEASE PRINT) Mohamed Abdel-Rahman

TITLE VP of Exploration & Production

SIGNATURE [Signature]

DATE 9/28/2009

(This space for State use only)

RECEIVED

OCT 01 2009

DIV. OF OIL, GAS & MINING

**Application for Permit to Drill  
Request for Permit Extension  
Validation**

(this form should accompany the Sundry Notice requesting permit extension)

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Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes ☐ No ☒

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Has the approved source of water for drilling changed? Yes ☐ No ☒

Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes ☐ No ☒

Is bonding still in place, which covers this proposed well? Yes ☒ No ☐

  
Signature

9/28/2009

Date

Title: VP of Exploration & Production

Representing: Royale Energy, Inc

**RECEIVED**

**OCT 01 2009**

**DIV. OF OIL, GAS & MINING**

<div>STATE OF UTAH</div> <div>DEPARTMENT OF NATURAL RESOURCES</div> <div>DIVISION OF OIL, GAS, AND MINING</div>		<div>FORM 9</div>	
<div>SUNDRY NOTICES AND REPORTS ON WELLS</div> <div>Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.</div>		<div>5.LEASE DESIGNATION AND SERIAL NUMBER:</div> <div>ML-46110</div>	
<div>1. TYPE OF WELL</div> <div>Gas Well</div>		<div>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</div>	
<div>2. NAME OF OPERATOR:</div> <div>ROYALE ENERGY, INC.</div>		<div>7.UNIT or CA AGREEMENT NAME:</div> <div>MOON CANYON</div>	
<div>3. ADDRESS OF OPERATOR:</div> <div>7676 Hazard Center Dr Ste 1500 , San Diego, CA, 92108</div>		<div>8. WELL NAME and NUMBER:</div> <div>VERNAL EQUINOX 2-2</div>	
<div>4. LOCATION OF WELL</div> <div>FOOTAGES AT SURFACE:</div> <div>0832 FSL 2025 FWL</div> <div>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</div> <div>Qtr/Qtr: SESW Section: 02 Township: 16.0S Range: 21.0E Meridian: S</div>		<div>9. API NUMBER:</div> <div>43019315520000</div>	
		<div>9. FIELD and POOL or WILDCAT:</div> <div>UNDESIGNATED</div>	
		<div>COUNTY:</div> <div>GRAND</div>	
		<div>STATE:</div> <div>UTAH</div>	
<div>11.</div> <div>CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA</div>			
<div>TYPE OF SUBMISSION</div>		<div>TYPE OF ACTION</div>	
<div><input checked="" type="checkbox"/> NOTICE OF INTENT</div> <div>Approximate date work will start:</div> <div>9/1/2011</div> <div><input type="checkbox"/> SUBSEQUENT REPORT</div> <div>Date of Work Completion:</div> <div><input type="checkbox"/> SPUD REPORT</div> <div>Date of Spud:</div> <div><input type="checkbox"/> DRILLING REPORT</div> <div>Report Date:</div>		<div><input type="checkbox"/> ACIDIZE</div> <div><input type="checkbox"/> CHANGE TO PREVIOUS PLANS</div> <div><input type="checkbox"/> CHANGE WELL STATUS</div> <div><input type="checkbox"/> DEEPEN</div> <div><input type="checkbox"/> OPERATOR CHANGE</div> <div><input type="checkbox"/> PRODUCTION START OR RESUME</div> <div><input type="checkbox"/> REPERFORATE CURRENT FORMATION</div> <div><input type="checkbox"/> TUBING REPAIR</div> <div><input type="checkbox"/> WATER SHUTOFF</div> <div><input type="checkbox"/> WILDCAT WELL DETERMINATION</div> <div><input type="checkbox"/> ALTER CASING</div> <div><input type="checkbox"/> CHANGE TUBING</div> <div><input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS</div> <div><input type="checkbox"/> FRACTURE TREAT</div> <div><input type="checkbox"/> PLUG AND ABANDON</div> <div><input type="checkbox"/> RECLAMATION OF WELL SITE</div> <div><input type="checkbox"/> SIDETRACK TO REPAIR WELL</div> <div><input type="checkbox"/> VENT OR FLARE</div> <div><input type="checkbox"/> SI TA STATUS EXTENSION</div> <div><input type="checkbox"/> OTHER</div> <div><input type="checkbox"/> CASING REPAIR</div> <div><input type="checkbox"/> CHANGE WELL NAME</div> <div><input type="checkbox"/> CONVERT WELL TYPE</div> <div><input type="checkbox"/> NEW CONSTRUCTION</div> <div><input type="checkbox"/> PLUG BACK</div> <div><input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION</div> <div><input type="checkbox"/> TEMPORARY ABANDON</div> <div><input type="checkbox"/> WATER DISPOSAL</div> <div><input checked="" type="checkbox"/> APD EXTENSION</div> <div>OTHER: <input type="text"/></div>	
<div>12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.</div> <div>Royale Energy, Inc requests a one year extension for its Application to Drill of above described well.</div> <div>REQUEST DENIED</div> <div>Utah Division of</div> <div>Oil, Gas and Mining</div> <div>Date: August 19, 2010</div> <div>By:</div>			
<div>NAME (PLEASE PRINT)</div> <div>Rachele Wolchko</div>		<div>PHONE NUMBER</div> <div>619 881-2874</div>	
<div>SIGNATURE</div> <div>N/A</div>		<div>TITLE</div> <div>Executive Assistant</div>	
		<div>DATE</div> <div>8/18/2010</div>	



## The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

### Request for Permit Extension Validation Well Number 43019315520000

**API:** 43019315520000

**Well Name:** VERNAL EQUINOX 2-2

**Location:** 0832 FSL 2025 FWL QTR SESW SEC 02 TWP 160S RNG 210E MER S

**Company Permit Issued to:** ROYALE ENERGY, INC.

**Date Original Permit Issued:** 9/4/2007

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

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- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? ☐ Yes ☒ No
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? ☐ Yes ☒ No
- Has the approved source of water for drilling changed? ☐ Yes ☒ No
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? ☐ Yes ☒ No
- Is bonding still in place, which covers this proposed well? ☒ Yes ☐ No

**REQUEST DENIED**

**Utah Division of  
Oil, Gas and Mining**

**Signature:** Rachele Wolchko

**Date:** 8/18/2010

**Title:** Executive Assistant **Representing:** ROYALE ENERGY, INC.

**Date:** August 19, 2010

**By:** \_\_\_\_\_

**RECEIVED** August 18, 2010



GARY R. HERBERT  
Governor

GREGORY S. BELL  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

September 13, 2010

Royale Energy, Inc.  
7676 Hazard Center Dr.  
San Diego CA 92108

Re: APD Rescinded – Vernal Equinox 2-2, Sec. 2 T. 16S, R. 21E  
Grand County, Utah API No. 43-019-31552

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on September 4, 2007. On September 16, 2008 and November 3, 2009, the Division granted a one-year APD extension. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective September 13, 2010.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason  
Environmental Scientist

cc: Well File  
SITLA, Ed Bonner





# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Green River District-Vernal Field Office

170 South 500 East

Vernal, UT 84078

(435) 781-4400 Fax: (435) 781-4410

<http://www.blm.gov/ut/st/en/fo/vernal.html>



**SEP 20 2011**

IN REPLY REFER TO:  
3160 (UTG011)

Rachele Wolchko  
Royale Energy, Inc.  
7676 Hazard Center Drive, Suite 1500  
San Diego, CA 92108

43 019 31552

Re: Notice of State Lease APD Rescinded  
Well No. Vernal Equinox 2-2  
SESW, Sec. 2, T16S, R21E  
Grand County, Utah  
Lease No. ML-46110  
Moon Canyon Unit

Dear Ms. Wolchko:

The Bureau of Land Management (BLM) Vernal Field Office accepted the State of Utah Application for Permit to Drill (APD) for the above referenced well for unit purposes on October 22, 2007. This office received a copy of the APD Rescinded letter from the Utah Division of Oil Gas and Mining rescinding their approval to drill the referenced well effective September 13, 2010. In view of the foregoing, this office is rescinding its acceptance/approval of the referenced APD.

If you have any questions regarding this matter, please contact Cindy Severson at (435) 781-4455.

Sincerely,

Jerry Kenczka  
Assistant Field Manager  
Lands & Mineral Resources

**RECEIVED**

**OCT 07 2011**

**DIV. OF OIL, GAS & MINING**

cc: UDOGM,  
API No.43-019-31552